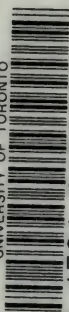


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Matterhorn from the Riffelalp.

The Complete Mountaineer

BY

GEORGE D. ABRAHAM

Member of the Climbers' Club, the Swiss Alpine Club, etc.

Illustrated



NEW YORK

Doubleday, Page & Company

1908



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TO
HER WHOM I MET
ON THE ROCKS

P R E F A C E

ABOUT two years ago the publishers thought it desirable that mountaineering should be brought into line with our other national sports. In other words, they decided to publish a work entitled, "The Complete Mountaineer," uniform with their other well-known "Complete Series." This accounts for the apparently presumptuous title of this book, and the author craves pardon for what his brother climbers might well describe as an impossible pitch.

No one is aware of the difficulty and resultant shortcomings of the undertaking more than the author; but he feels that the outcome of his personal experience, both in technical matters and on the mountains themselves, may prove of service and interest to the largely increasing public who find their greatest pleasure in the high places of the earth.

In the technical sections no lengthy attempt has been made to explain or teach details that can only be learnt in actual practice on the mountains, and in charge of more or less experienced friends.

When dealing with the various districts, the author has, for the most part, so arranged the information culled from his own actual expeditions, that each chapter may prove useful to those who are making a first visit to the regions dealt with. As far as possible, second-hand opinions, which in mountaineering are notoriously contradictory and conflicting, have been avoided, and the actual personal experiences of a somewhat strenuous climbing career form the bulk of the book.

The ways of some modern mountaineers and the regrettable results of their thoughtlessness make it necessary that a note of warning should be sounded. This has been done in no uncertain manner, in fact one friend who has read some of the MS. kindly suggests that a suitable alternative for the title-page

would be, "How not to break your neck on the mountains, by one who has tried it."

The question as to which is the right or the left side of a gully or couloir always crops up in a book on mountaineering. In this case a glacier has been looked on as a river, and its right bank is that on the right looking down; but in other cases, such as a couloir, the geographical details are interwoven into the descriptions according to the direction in which the couloir is approached. In ascending, the right wall is on the climber's right-hand side, and *vice versa*.

Invaluable assistance has been freely given by numerous climbing friends, and the editors of the *Pall Mall Magazine* and the *Badminton Magazine* and Messrs. Newnes have kindly allowed the author to make a few extracts from articles supplied by him. But the best thanks are due to Mr. A. E. Field, who has kindly read through MS. and proofs, and rendered other indispensable aid.

As regards information on historical and other matters, it should be mentioned that the excellent works of the Rev. W. A. B. Coolidge, Sir W. M. Conway, C. T. Dent, and others have made the author's task lighter, and he hereby acknowledges his respect and admiration for those great mountaineers who have done so much for the sport and its devotees.

Despite the most careful attention, errors topographical and otherwise are bound to appear in such a comprehensive work, and the author will gladly welcome information which may help to correct these in future editions.

G. D. A.

IDWAL, CHESTNUT HILL
KESWICK

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*Where not otherwise stated, the photographs have been taken by
MESSRS. ABRAHAM & SONS of Keswick*

THE COMPLETE MOUNTAINEER

PART I

A BRIEF HISTORY AND THE TECHNICALITIES OF THE SPORT

CHAPTER I

THE EARLY MOUNTAINEERS

“And thus these threatening ranges of dark mountains, which, in nearly all ages of the world, men have looked upon with aversion or with terror, are, in reality, sources of life and happiness far fuller and more beneficent than the bright fruitfulness of the plain.”—RUSKIN

LIKE other modern sports, that of mountaineering has recently attracted the attention of the arm-chair critics; but these irreconcilables cannot stay its growing popularity. Cynical comment seems to be their only consolation, and one of them has said that, even failing the advent of the air-ship, the sport will cease to exist by reason of the fierceness of its fascination and consequent exhaustion. This may contain a suspicion of truth. It is well to remember that mountain-climbing, for the sake of the recreation and pleasure it affords, is essentially a product of the latter half of the nineteenth century. Thus, no great stretch of imagination is necessary to make one realise that in the long future which apparently lies before the human race, the taste for climbing may disappear again.

Everything changes, and generations of travellers yet to

come may rest content with a visit to Grindelwald, Chamonix, or Zermatt, for the sake of the bracing effects of the mountain air. However, present generations are still endowed with the power to appreciate the pure joys and benefits of mountaineering. Fortunate are those who have tasted of these, and renewed health and strength far above the cares and troubles of the world amongst the crags and silent snows of the everlasting hills.

Though the sport of mountaineering is of such modern growth, mountain worship in many and varied forms is as old as the hills. Through the misty ages of the past the high places have towered above the dwellers at their feet as something symbolic of the Great Unknown and the mystery thereof. Mountains loom largely through the literature of ancient times, and it is but fitting that the first one ascended should be in earliest biblical times. The ascent of Ararat by Noah and his large party is remarkable in that no accident occurred to a single member of it, which is more than can be said of more recent parties who have climbed this peak. Of course he was able to make the "climb" by water, and this gave him a considerable advantage over modern methods; let us hope for the sake of humanity that nobody will ever again have necessity to follow his route.

King David and later royalties, as well as poets and other humbler folk, have "lifted up their eyes to the hills from whence cometh help." Another scriptural gentleman, whose character is of a different mould, and who, from the climber's point of view, has the advantage of possessing a caudal appendage, had considerable appreciation of the view from an "exceeding high mountain." Strangely enough, some of the finest rock-scenery in Britain is linked with his name and associations. The Welsh Glyders possess a Devil's Kitchen and Staircase, the Cumbrian Great Gable is seamed by Hell Gate, and in Scotland and Ireland this style of nomenclature is far too abundant.

Mythology teems with the mountain exploits of its heroes on Olympus and elsewhere. The giants used somewhat novel and unorthodox methods in their attempt on this peak, which we are told they intended to surmount on their way heavenwards. Two other mountains, Pelion and Ossa, were piled

one on the other—*Ter sunt conati imponere Pelio Ossam*—to assist them in achieving their end, but old Jupiter fiercely resented this intrusion into his domestic privacy on the top of the lofty Olympus. In fact in his wrath he rolled down great boulders, or in classical language thunderbolts, on their devoted heads. Hercules helped to create this Olympian avalanche, which is, by the way, the first on record; and after effectively annihilating the giants, he saw them or what was left of them decently interred under Mount Etna.

Homer has extolled the glories of the rugged mountains of Ithaca; these are not on an imposing scale compared with modern standards, but perhaps they afforded many interesting boulder problems which helped to keep Ulysses in training. Horace gazed with admiration from the northern precincts of Rome on the distant snow-capped Soracte which is nowadays known as Monte Tresto. Virgil enjoyed watching the reflections of the snowy peaks in the Lake of Garda, whilst Dante first chronicled the tremendous rock-falls that filled the valley of the Adige, and are even to this day one of its popular sights.

In somewhat more recent and practical times, mountains were ascended as a penance or for some other definite purpose. Petrarch journeyed thither to moralise on the frailties of human life, "divers cures were found thereon," and one of the lieutenants of Hernando Cortes visited the heights to search for sulphur.

In those and still earlier days the remoter Alps were thought by the natives to be the haunts of demons and invisible fiends of many forms and features. Dragons of fearsome shapes dwelt amidst the glaciers; and until quite recently the disappearance of a wandering peasant who had most probably taken an overdose of *vin du pays* and fallen into a crevasse, was attributed to the instrumentality of one of these. Even though the dragons have nowadays fled before the inroad of "Cook and Gaze," curious superstitions still linger in many places. The "spirits of the damned" yet dwell amongst the crags of the Matterhorn, and the little chapel still stands by the shore of the Schwarz See to prevent them from invading the haunts of men. A special service is

held annually in this lonely mountain sanctuary, and mass is celebrated at the altar to renew the efficacy of the charm.

The passes of the Swiss Alps have been used as routes of communication from very ancient times. The Brenner and the Great St. Bernard were the most noted of these. The famous hospice on the latter was built at an early date on the site of an ancient pagan altar, and its wonderful life-saving dogs are a household word to-day.

In the February of 1188 a monk of Canterbury, John de Bremble by name, crossed this pass, and he left a striking description of his experience. Bishop Stubbs has included a translation of it in his *Lectures on the Study of Mediæval and Modern History*, and part of it is worth quoting. "Pardon me for not writing. I have been on the Mount of Jove; on the one hand looking up to the heavens of the mountains, on the other shuddering at the hell of the valleys, feeling myself so much nearer heaven that I was more sure my prayer would be answered. 'Lord,' I said, 'restore me to my brethren, that I may tell them that they come not into this place of torment.' Place of torment indeed, where the marble pavement of the stony ground is ice alone, and you cannot set your foot safely, and where, strange to say, although it is so slippery that you cannot stand, the death (into which there is every facility for a fall) is certain death; I put my hand in my scrip that I might scratch out a syllable or two to your sincerity; lo! I found my ink-bottle filled with a dry mass of ice; my fingers, too, refuse to write, my beard was stiff with frost, and my breath congealed into a long icicle. I could not write the news I wished."

This conveys an excellent idea of how the mountains were regarded in the twelfth and adjacent centuries. It will be readily understood that the peaks were seldom climbed, and until 1358 we have no reliable records of such; but in that year the Roche Melon, near Susa, was ascended and a chapel built on it at a height of 11,600 feet.

In 1492 Charles VIII. of France fitted out an expedition led by one of his chamberlains to find a way up Mont Aiguille, and following the usual custom of the times they built a chapel on the top, presumably to conciliate the evil spirits who were supposed to resort thither.

The dawn of the sixteenth century saw a change of attitude as regards the mountains amongst the more educated classes of Europe. Until this time any expedition in the Alps had been merely an incident in travel. The Alpine passes stood in the way of those travellers or pilgrims who wished to visit Italy, so they had to make the most of the inconvenience, and they would have much preferred their non-existence.

In the sixteenth century that remarkable man Leonardo da Vinci discerned somewhat of the charms of the mountains, and his drawings reveal an admirable idea of mountain form and beauty. There can be no doubt that some time during his career he ascended to a considerable height on the Monte Rosa group, but the exact point attained is not accurately known. It is generally believed that the curious markings and inscription "A. T. M. 1615," which are cut in the rocks above the Col d'Ollen, are connected somehow with his climb.

About the middle of the same century the Humanists of Switzerland began to take intelligent interest in their native peaks and made expeditions thither, which mark the inception of the truest mountaineering spirit. The religious troubles and wars of this era checked, from a climber's standpoint, the march of civilisation in Central Europe, but about this time Mount Pilatus appears to have attracted some of the more adventurous spirits.

There was a vague local tradition at Lucerne that the ghost of Pilate haunted a certain lake on this mountain, and any attempt to invade "Pilate's ground" would prove fatal. However, in 1518, two separate parties braved these superstitious dangers, gained the summit, returned to Lucerne, and no evil came of it. The exiled Duke Ulrich of Würtemberg was one of these, and a company of four Swiss pedants followed his example. They all carved their names on the summit rocks, but the respectable citizens of Lucerne, who had perforce to accompany them, prevented their investigations of the ghostly mere.

About this time Conrad Gesner and Simler made interesting records in the annals of the mountains. They may be credited with the formation of the earliest school of mountaineers. This was amongst the students at Zurich, whose excursions anticipated the system of tours favoured by the Swiss Alpine

Club of to-day. Gesner made the third ascent of Pilatus purely for the love of the climb, and to his mind the ghost of Pilate was the mountain's misfortune rather than its attraction. He had a noteworthy love of the grander and more inspiring beauties of nature, and the following extract from a letter to his friend Vogel of Glarus reveals that innate appreciation of scenery which Rousseau is supposed to have first created two centuries later. He wrote: "I have resolved for the future, so long as God grants me life, to ascend divers mountains every year, or at least one, in the season when vegetation is at its height, partly for botanical observation, partly for the worthy exercise of the body and recreation of the mind. What must be the pleasure, think you, what the delight of a mind rightly touched, to gaze upon the huge mountain masses for one's show, and, as it were, lift one's head into the clouds? The soul is strangely rapt with these astounding heights and carried off to the contemplation of the one Supreme Architect. . . . Philosophers will always feast the eyes of body and mind on the goodly things of this earthly paradise; and by no means least among these are the abruptly soaring summits, the trackless steeps, the vast slopes rising to the sky, the rugged rocks, the shady woods."

It is comforting to note that this worthy precursor of Ruskin was, unlike that great writer, able to understand the physical joys of our sport. Speaking of these he said: "For as we walk, or at times jump, every part of the body is exercised. We work and stretch every sinew and muscle, some in going up, others in coming down, and with variety in each of these kinds too, if (as is the case in mountain walking) the course is alternately straightforward and slanting."

His remarks on Alpine sleeping quarters would do well for a superior club hut of the present day, if we except his omission in not mentioning the unnecessary blankets and their inhabitants—those exceedingly active and many-legged specimens of the Alpine fauna that oftentimes spoil the slumbers of modern climbers. "There are no beds, no mattresses, no feathers, no pillows. Luxurious and effeminate wretch! hay shall serve you for all; soft and fragrant hay, compounded of the most wholesome grasses and flowers. You shall sleep more sweetly and healthfully than ever before, with hay for

a pillow under your head, for a mattress under your body, and spread over you for a blanket."

Gesner thus concludes one of his descriptions of an ascent: "Give me a man of reasonably good complexion in mind and body, of liberal nurture, not the slave of indolence, luxury, or passion; I would have him likewise a curious admirer of nature, so that by beholding and admiring the mighty works of the Master-workman and the variety displayed in one mass among the mountains, delight of the mind should be added to the harmonious delight of all the senses; what entertainment, I ask, can you find in this world so high, so worthy, and in every respect so perfect?"

Gesner's contemporary Josias Simler was the author of the first book on mountaineering, and his hints on how to avoid its dangers and circumvent the difficulties are strikingly sound both in theory and practice. After much information regarding frost-bite, he advises the use of black spectacles to protect the eyes, and his description of the use of the rope amongst hidden crevasses is the first on record. The latter section I quote in full from Mr. Coolidge's most lucid translation: "That ancient ice, over which one must sometimes make one's way, has deep chasms in it, 3 or 4 feet wide and often even longer, into which, if a man fall, he must, without doubt, perish. It also happens that these chasms may be covered with fresh snow or by snow blown together by the wind. Hence those who then travel in the Alps hire men who know the place to go in front as guides. These men gird themselves with a rope, to which some of those who come after also bind themselves; the leading man sounds the way with a long pole, and carefully keeps a lookout in the snow for these chasms; but if he unexpectedly falls into one of them, he is held up and drawn out again by those of his companions who are tied by the same rope as he is."

Towards the end of the sixteenth century, we find the climbers of the Zurich school almost extinct; and it is a curious fact that, until the end of the seventeenth century, the mountains and the literature pertaining thereto were practically neglected.

There was a regrettable relapse into the opinions of the early days, and fiends, goblins, and other mysterious beings

thronged the beloved haunts of Gesner, Simler, and their companions. Travellers making the "Grand Tour" gazed on the mountains, regarding them as hideous excrescences, and peopling their glaciers with dragons and monsters; the voice of the Evil One spoke in the avalanches, and demons lay waiting in subterranean recesses to consume any unlucky mortal who came within their grasp. This was the period of Scheuchzer and his dragons; in fact, it might well be called "The Dragon Age."

Scheuchzer was fortunately the last of his school, and before his death popular ideas began to alter with the progress of science—in fact, the dragons were on their last legs; they had received notice to quit. However, before dismissing them it will be amusing to note some of the beliefs of Scheuchzer and those of his Jesuit predecessor, Kircher. The former wrote a striking dissertation on the dragon stone, which was one of the sights of the museum at Lucerne. This was the only stone of its kind extant, and small wonder so when we read details of the dangers and difficulty of procuring such a treasure. To do so it was necessary first to catch a dragon asleep, then, after further soothing him by placing soporific plants beneath his nostrils, it might be possible by a mysterious surgical operation to cut the stone out of his head. We are suggestively told that "failure will result if the monster awakes during the progress of the extraction."

Scheuchzer has left several remarkable sketches and journals dealing with his favourite pets, and some of these were published at the expense of the Royal Society of London, in fact some of his pictures are dedicated to Sir Isaac Newton. However, we must not be surprised at the credulity of the early scientists, for do we not live in the age of de Rougemont and his wonderful appearance before the British Association? Scheuchzer has also given to the world a scientific classification of dragons. These are of almost every conceivable form and shape of ugliness and monstrosity. "One of their peculiarities is that they breathe so hard as to draw in not merely air, but the birds flying above them."

Kircher's ideas were of much the same character, though as a mountaineer of sorts he had bearded the "dragon in its den." He once had an exciting adventure whilst climbing

Mons Arnus above Unterwalden in search of a cave which was supposed to contain precious metals. As he clambered up the last rocks to the object of his search, there issued from its mouth fearful sounds resembling the roar of human voices, although no mortals could possibly be within. The explorer had a hairbreadth escape from being hurled down the mountain, whilst no doubt his enthusiasm for mountaineering and cave-exploration received a rude shock.

Now that the last of the dragons has departed, we can afford to smile at these old superstitions, but many modern climbers are able to sympathise with these curious creations of comparatively recent times.

Shelley has spoken of

“the glaciers which creep
Like snakes that watch their prey from their far fountains,
Slow rolling on”;

and most Alpinists must have noted the appropriateness of this description, for even the lower heights around, say Zermatt or Grindelwald, reveal somewhat of the poet's meaning. Seen in the evening light or on a day of gloom with uncertain mist shrouding the peaks, the glaciers seem weirdly lifelike, long, immeasurable, icy monsters that thrust out their fangs from the dark rocky gorges, and like some huge white crustacean, seem to grasp the pine-clad slopes and fertile meadows in their desolating grip.

At the beginning of the eighteenth century a notable orographical work attracted considerable attention on the Continent, and in some way helped to create the new school of climbers which arose about that period. This book was a monograph with the formidable title of *Die Curieuse Orographia oder accurate Beschreibung derer berühmtesten Bergen*, and Johann Gottfried Gregorii *alias* Melissantes was its painstaking author.

The volume is extremely scarce in these days, but the libraries of most of the Alpine and climbing clubs possess copies. It is a most exhaustive résumé of mountain history up to the closing stages of the seventeenth century, and Gregorii's quaint German style is ornately interspersed with classical allusions and quotations. A keen sense of humour

pervades almost every page, and, despite the neglect of the book by modern Alpine bibliographers, its perusal will well repay any interested inquirer. There is a wonderful alphabetical encyclopedia covering over seven hundred octavo pages, and quotations from two of the headings will give an idea of the style.

"Andes: The air of this region (namely, the high elevations) is thus disposed for inflammations and heat that the travellers seem to breathe out flames of fire, and it appears as if they were burning all over, for the tremendous sweating makes them fearfully hot. It is a gruesome *spectaculum* for those not accustomed to it."

"Figenoyamma: In Japonia lies the high mountain Figenoyamma, which the inhabitants say is the highest in the world. It spits fire like Etna, and in the flames devils may be seen disporting themselves."

The following translation by Mr. W. W. R. Rickmers is typical of the descriptive part of the book, and shows the originality of Gregori's treatment:

"Many are the utilities of the mountains. In low countries they are the high watch-towers to guard against the ravages of war and water. The mountains are the weather-cocks of the people living near them. . . . They are the crowns and boundaries of countries and their protecting wall against enemies. They are the pipe-lines and water-works to quench the thirst of man and beast, and to drive corn-mills, oil-presses, smelting-works, and ore-stamps. Clear, good, fresh water is the best malmsey wine for our workmen in the woods and fields. They are the food-boxes of tame and wild cattle. Our kings possess in them their best iron-stores and treasuries of gold, silver, and precious stones likewise; they are public apothecaries for man and beast; the dancing and pleasure grounds of our children; the mirror of wrath of the Deluge, and the infallible monuments of our Creator. They afford great diversion to the foreigner, who surveys the country from their tops, and they may be called the breasts of the earth, the veins and bones of the great world-edifice."

The first half of the eighteenth century saw a marked revival of that interest in mountaineering which had practi-



Abraham

MONT BLANC FROM THE PRÉVÔT

THE GRANDS MULETS ROCKS ARE SEEN PEERING ABOVE THE MIST, ALMOST IN A DIRECT LINE BELOW THE SUMMIT; THE SNOWY OUTLINE ON THE RIGHT IS THE DÔME DU DROMADAIRE CONNECTING IT WITH MONT BLANC. THE AIGUILLE DU MIDI IS CONSPICUOUS ON THE LEFT

cally lain dormant for nearly two centuries, since the time when Gesner and his contemporaries flourished. Scheuchzer's *Itinera Alpina* with its description of his mountain journeys between the years 1702 and 1711, and Rousseau's almost revolutionary rhapsodies on the beauties of the Alps, paved the way for a host of other travellers who joined in the popular mountain-worship.

Several passes were regularly crossed at this time, but the ascent of the snow-crowned Titlis in 1739 by a monk of Engelberg marked the beginning of the conquest of the Alps, which we might almost say is still in progress, for each year new routes and variations are discovered.

Windham and Pococke's visit to Chamonix in 1741 and Martel's in 1742 resulted in a general rush to this previously almost unknown valley. Mont Maudit, or the Cursed Mountain as it was then called, was the object of their admiration, and it soon became known as Mont Blanc.

It appears to have been customary in the early days for a successful mountaineer to call his peak the highest or second highest in the world. Later on it became apparent that the more modest travellers yielded to Mont Blanc the honour of being the highest point in Europe, and the feasibility of its ascent began to be discussed among visitors to Chamonix. Amongst these were many men now famous in literature and science. Haller, Gibbon, and Gruner have written their impressions of the scenery; but the name of Saussure, the "athletic scientist," is more intimately connected with the Great White Mountain, for he was the first man to recognise the possibility of climbing it. This was in 1760, and in this and the following year he offered a reward for the discovery of a route to its summit.

The artist Bourrit may also be considered as one of the pioneers, for he made several of the earliest attempts on Mont Blanc. Unfortunately, he never quite succeeded in reaching the height of his ambition. His drawings which illustrate Saussure's famous book *Voyages dans les Alpes* (1787), though made in the style of the age in which he lived, show a careful appreciation of mountain form; and on the whole they are fairly recognisable, which is more than can be said of many more recent artistic efforts.

A chamois hunter, Pierre Simond by name, was the first man to make a bid for the attainment of Saussure's reward. He made two attempts; one from the Glacier du Géant, the other by the Montagne de la Côte and the Glacier des Bossons. Jacques Balmat also attacked the mountain by this latter route, and it was quickly recognised that this side was the more amenable to attack.

Though several parties made determined attempts to tread the summit snows, nearly a quarter of a century elapsed before Dr. Paccard, the village doctor, and Jacques Balmat, a guide of the period, solved the problem, and the latter claimed Saussure's reward. A story of their ascent has been published in minutest details elsewhere, but the most reliable and probably the only true one is found in the late C. E. Matthews' monograph, *The Annals of Mont Blanc*.

Practically all the descriptions are based on the one written in 1832 by the famous novelist Alexander Dumas. If it is remembered that this was dictated to him by Balmat forty-six years after the climb, and also that some allowance should be granted for the writer's "artistic license," it will easily be understood how certain discrepancies have arisen. The curious fact is that Balmat has somehow received all the credit of the ascent, and the Doctor who shared in it, and was more or less the originator of the scheme, has been almost forgotten. There can be little doubt that Balmat was an intense egoist. Before the ascent his boasts were of "his famous calves, his grand legs, his stomach like cast-iron, and his ability to go three days without eating"; and practically the rest of his after-life was spent in dilating on the wonders of his achievements to audiences with extreme bibulous tendencies. At first Dr. Paccard shared the honour equally with him, but gradually he became the object of ridicule, until Balmat eventually stated that the Doctor "was left by himself with the bottle for an hour and a half sitting half-frozen in the snow some way below the top." This has been conclusively proved to be untrue, and Paccard about this time got Balmat to sign a certificate in the presence of witnesses saying that they arrived together on the top. Surely some day the Chamoniards will be induced to erect a statue to the memory of their village doctor, who has at least an equal claim upon

their memory with Jacques Balmat, whose effigy adorns one of their principal thoroughfares.

A few remarks on the famous conquest of Mont Blanc may prove of interest.

Following the route of previous attempts, Dr. Paccard and Jacques Balmat arrived at the top of the Montagne de la Côte on the evening of the 8th of August 1786. After spending a tolerable night on the rocks, "for the Doctor was muffled up in a rug like a baby," they started upwards next morning about 2 a.m. in glorious weather.

Crossing the crevasses where the glaciers of Bossons and Taconnaz unite, they walked up to the Petit Plateau, and thence by the route used in present times to the Grand Plateau. It is advisable to quote Carrier's description from Balmat's own dictation of the route followed beyond this point, for Dumas' story hereabout is vague and uncertain.

"From the Grand Plateau, steering towards the south, they came to the foot of the steep snow-slope where Balmat had found it necessary to cut so many steps on his previous excursion. Although the crust of the snow was then thawed by the sun, it took them at least two hours to climb it and arrive at the Rochers Ronges. Up to this time only the rarity of the air and fatigue had incommoded them, but when they arrived at this point a very cold and violent north-easterly wind added to their discomfort. It was so fierce that it dislodged Paccard's hat, although it was strongly fastened with strings. However, hesitation was impossible. They must go on or become frozen on the spot. From this place to the summit, although the slope was scarcely steep, they struggled for breath, which, added to the weariness and the deadly cold which they endured and to the fierceness of the wind which violently delayed their progress, made their situation extremely perilous. Despite such strong reasons for discouragement, their marvellous energy overcame all things, and at four o'clock in the afternoon they gained the summit of the Colossus of the Alps."

It may be noticed that even this account contains the error of giving four o'clock as the time of their arrival instead of six, as stated in all other records, but this is probably due to some slight confusion in dictation.

On the 1st of August of the following year Saussure with eighteen guides and his personal servant, Tetu by name, set off to climb Mont Blanc. They slept a night on the top of the Montagne de la Côte, and next day with Jacques Balmat as head guide continued upwards. Unfortunately the glaciers were badly crevassed, and they occupied ten hours in gaining the great snow-recess below the Dôme du Goûter, which is now known as the Petit Plateau. Fatigue and fear of avalanches prevented further progress that day, so the guides dug out a great hole in the snow wherein they passed their second night on the mountain. The tent was fixed so carefully over this that none of them were much affected by cold, in fact, Saussure has said that he suffered so much from the heat that he had to go outside to breathe.

Modern climbers will be able to sympathise with him in this, for some of the club huts of to-day are utterly unable to accommodate their would-be inhabitants in comfort. When a hut built to hold twelve people is packed in every available space by thirty robust, perspiring climbers, mostly guides, it will be readily understood that the air possesses a strong "local flavour." It often becomes necessary to do as Saussure did, namely, "go outside to breathe"; in fact many prefer to sleep there, and if the weather be fine the experience is one of the joys of the Alps.

However, to revert to the early days, it remains but to say that the following day, the 3rd of August, Saussure and his doughty companions braved the dangers of the upper snows of the Great White Mountain, and reached the summit by way of the *ancien passage* and the Rochers Ronges. The famous scientist made many observations, but was evidently somewhat disappointed to find Balmat's story about "the stars shining in the deep blue sky, though the sun shone," to be untrue. In descending they passed the night on the rocks now known as the Grands Mulets, and about midday on the fourth day of their journey they were back in Chamonix, "receiving the embraces of their families." This was a great achievement considering the unwieldy size of the party, and, despite the wonderful weather conditions, it is remarkable that nobody was seriously incapacitated by mountain sickness.



Abraham

THE FINSTERAARHORN FROM THE SCHRECKHORN

A SHOULDER OF THE AGASSZHORN IS VISIBLE ON THE RIGHT WITH THE AGASSIZJOCH BETWEEN THE TWO PEAKS

Thus vanished the inaccessibility of Mont Blanc ; but until the end of 1788 only five successful ascents had been made, and the two last of these were undertaken by Englishmen.

After that date, for fourteen years the summit of Mont Blanc was untrodden by man. No doubt the French Revolution and the continental dissensions that ensued were for the most part the cause of this. However, at the beginning of the nineteenth century there was a revival in the traffic, and from 1802 onwards several ascents were made, though not until about thirty years later did the climb become a common event at Chamonix.

The first half of the nineteenth century saw a growing interest in the mountains. The Jungfrau, from its conspicuous position and comparative ease of access, soon attracted attention, and it was climbed in 1811 by the Brothers Meyer of Aarau with two Valais chamois hunters. They approached the mountain from the Lötschenthal, and, after two days spent amongst the tributaries of the Aletsch glacier, reached the summit by the south-east ridge, by passing over the Roththorn and the Roththal Sattel.

The Finsteraarhorn was vanquished in the next year, and other peaks shared the same fate in quick succession, until about 1850, when one might almost say that a goodly proportion of the easier peaks had been explored as well as climbed, and men of many nations were attracted by the real pleasures of mountain travel.

CHAPTER II

MODERN MOUNTAINEERING

“For I know of a sun an’ a wind
And some plains and a mountain be’ind
Where there’s neither a road nor a tree
But only my Maker and me.”—KIPLING

THE “old guard” of the mountaineering cult, who, sad to tell, are growing regrettably sparse before the ravages of Father Time, have spoken of the Virgin Alps in such glowing colours as to make some of the younger men think they are born a generation too late. Personally I imagine that this is but a transient feeling, for, despite the lack of “inaccessible peaks,” there is a lasting fascination about the “Swiss Giants.” As an instance, it matters little how many people have strode the crest of such a peak as the Matterhorn, its individuality is still there. To each climber who makes his first acquaintance with its snow-covered slabs and shattered ridges, the element of novelty is scarcely wanting; in fact its past history adds considerably to the interest of the undertaking. Still, there is no denying the fact that a wonderful charm lingers around a new thing despite its actual worth. Did we not in our earliest days, when the “cradle traverse” was the extent of our climbing knowledge, prefer to investigate the new penny tin gee-gee, resplendent in its fresh coat of paint, rather than the stately but familiar rocking-horse. It is so to-day on the mountains, everyone is on the lookout for fresh routes and new peaks, and their conquest is certainly the climbers’ greatest joy. The Alps are nowadays practically all thoroughly subdued, and climbers in search of new worlds to conquer must go further afield; but only those rolling in wealth, and with unlimited time on their hands, can afford to visit the great ranges of the Himalayas, the Caucasus, or the Andes. The bulk of mountaineers must needs rest con-

tent with the Alps, and they may console themselves with the thought that, despite the many more distant "hobby-horses" of various specialists, the playground of Europe is at present the grandest and most convenient mountain range in the world.

There are ascents of all shades of difficulty; we may go up the Gorner Grat by railway or up the stupendous cliff of the Aiguille de Grépon by any slight excrescences on its surface that are available for fingers and toes. Switzerland also possesses the finest mountain guides in the world, maps of the highest parts unequalled anywhere for accuracy of detail, and a wonderful series of huts conveniently placed to facilitate travel above the snow-line.

Most of these advantages we owe to the indomitable pluck and energy of those pioneers who initiated the sport of mountaineering between the years 1850 and 1860. Previous to that time most of the ascents that had been made were more or less aimless and unsystematic, but the beginning of the latter half of the nineteenth century saw the advent of several enthusiastic and athletic parties of Englishmen, who quickly recognised the pleasures as well as the penalties of our mountain sport. They were alert to learn and elaborate all the means of making ascents in the greatest possible safety, for, even at this early date, the Hamel catastrophe of 1820, whereby three guides perished on Mont Blanc, had revealed in part the dangers of the regions of eternal snow.

No doubt Albert Smith's ascent of the so-called monarch of mountains was partly responsible for the earliest growth of the climbers' craft. This was in 1851, and in the following year he produced an illustrated entertainment dealing with his adventures. This was at the Egyptian Hall in Piccadilly, and "The Ascent of Mont Blanc" "caught on," for it had a most successful run of six years, and might to-day have been emulating the example of a famous "Aunt" had its originator lived to cheer its patrons with his exuberant eloquence.

Though some modern mountaineers would doubtless look with disfavour on such an exhibition, it must be remembered that in those early days the Alps were practically unknown to Englishmen, and many of the famous climbers who afterwards conquered the great peaks imbibed their first enthusiasm through listening to Albert Smith's thrilling story of Mont

Blanc. Before his time men looked on the ascent as a most serious undertaking, and many made their wills before starting. However, the popular entertainer treated the whole excursion as a huge joke, and made fun out of everything. It is amusing to hear of his early adventures with the diorama, where he tells of going round to various literary institutions "with the Alps in a box," and how he and his brother used to drive their four-wheeled chaise about the country "with Mont Blanc on the back seat."

The ascent of the Wetterhorn in 1854 by Mr. Justice Wills is generally recognised as the beginning of the genuine sporting side of mountaineering.

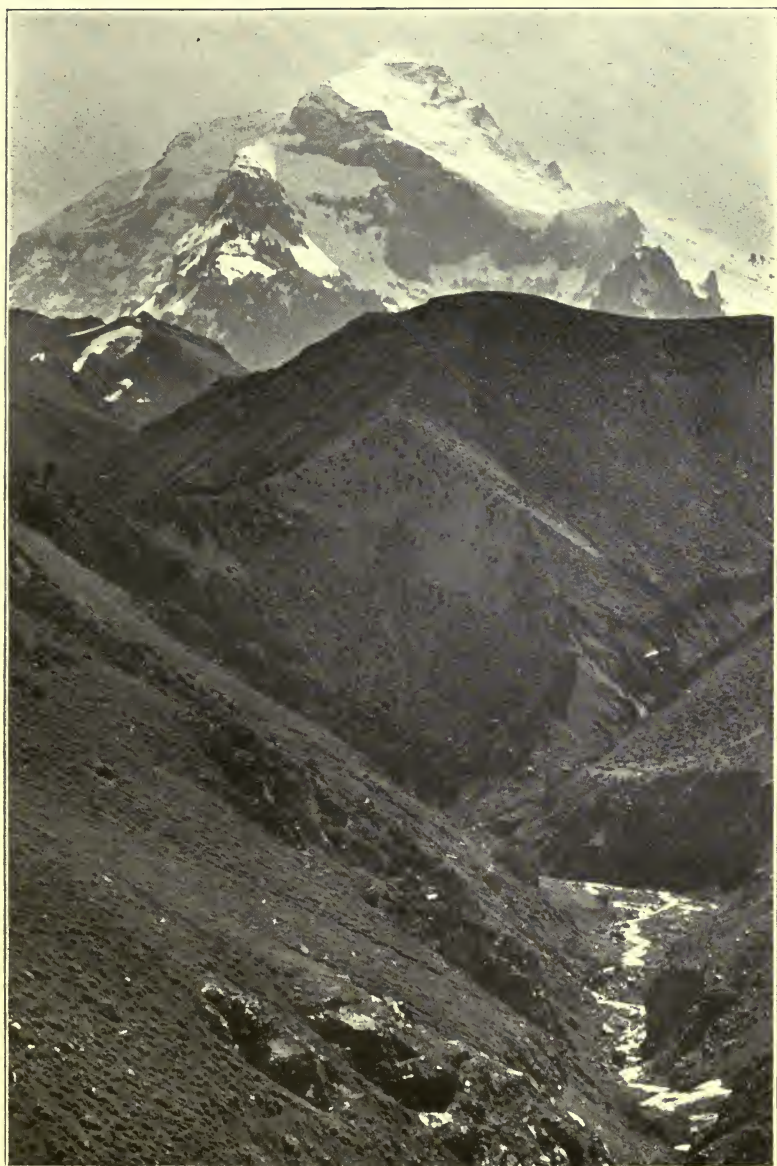
The following year, on the 1st of August, a party of Englishmen, Messrs. Birkbeck, Stevenson, Hudson, and the two Brothers Smyth, with two guides, made the first ascent of Monte Rosa, the second highest peak in the Alps; and their route on the upper part of the mountain is followed at the present day.

In 1856 the same party with Mr. E. S. Kennedy made practically a new route up Mont Blanc from St. Gervais, without professional assistance, and they may be looked on as the founders of guideless climbing.

During these years numerous other famous peaks were surmounted, and the names of Professors J. D. Forbes and John Tyndall, Thos. W. Hinchliff, A. W. Moore, the Matthews, Llewellyn Davies, and Leslie Stephen and many others are inseparably connected with those early, almost classical, days of our sport.

The year 1857 was memorable as that during which the English Alpine Club was formed. This has nowadays upwards of six hundred members, and the English Climbers' Club, a more recent institution, includes almost as many enthusiasts. Continental countries have followed our example, and nowadays their clubs number collectively between forty and fifty thousand members, though all of these are not actively engaged in climbing.

By this time men had recognised the advantages, with a view to safety, of using the rope on both rocks and snow. The ice-axe and strong, nailed boots, in contradistinction to the "pole-axe and slippers," were in regular use. The varying



A. E. Lightbody

ACONCAGUA FROM VACAS VALLEY

conditions of the snow in the upper regions, the likelihood of avalanches, and the many small items, hereafter to be dealt with, which conduce to the safety of a climbing party, had been more or less learnt and appreciated. This rapidly growing knowledge of the climbing craft brought the thorough exploration of the mountains well within the regions of possibility, and success followed success quickly.

Space forbids a lengthy record of the conquest of all the greater Alps, but a few remarks regarding the most interesting from the climbers' point of view may be worth noting.

The Dom, which is, by the way, the highest peak, with its base situated altogether in Switzerland, was climbed in 1858; the way up Mont Blanc by the Bosses du Dromedaire in 1859; but the season of 1861 may be regarded as the most successful of that period.

Leslie Stephen's famous ascent of the Schreckhorn and Tyndall's success on the Weisshorn are the notable events of that year; but the Lyskamm, Castor, and some peaks of Monte Rosa also yielded to the rapidly developing skill of the mountaineers.

The following year Messrs. Kennedy and Wigram reached the top of the Dent Blanche, and in 1864 came Leslie Stephen's climb up the Zinal Rothorn, which is graphically described in his *Playground*.

The indefatigable Whymper had already begun his wonderful "Scrambles," and in 1865 came the successful but tragical ending to his prolonged attempts on the Matterhorn. Besides the Ober Gabelhorn that rises above Zermatt, a few of the Chamonix peaks also yielded the same year, notably the Aiguilles Verte, Chardonnet, and Bionnassay.

In 1871 the Meije, the most difficult peak in the Dauphiny Alps, was climbed by M. de Castelnau with the two Gaspards of St. Christophe.

Succeeding years saw the Oberland peaks surmounted, until we may practically say that, at the end of the seventies, only the most difficult of the Chamonix aiguilles defied the attack of the experts.

That rock-climbing genius Mr. A. F. Mummery entered the lists about 1880, and the defiant pinnacles of the Charmoz, Grépon, Dent du Requin, and other difficult routes fell victims

to his remarkable skill. With the exception of the Petit Dru (1879) and the Aiguille du Géant (1882), we may say that Englishmen have had the honour of first ascending all the principal and more sporting peaks of the Swiss Alps.

Continental mountaineers recognise this, and the following is a generous appreciation by a French writer in *Le Monde Moderne*. "To the English," he says, "belongs the honour of having given the impulse to the whole movement for thoroughly exploring mountain summits. It is by the formation of the first Alpine club that the English by their example created numerous similar societies in the various European countries."

Forsaking for the present the history of the less popular portions of the Alps, the records of mountain exploration in other lands demand some consideration.

The lofty peaks of the Caucasus attracted attention so long ago as 1868, and to Mr. Douglas W. Freshfield belongs the honour of first making their exploration. Expert parties climbed there in 1873 and in 1886, since which date they have been visited almost every season by many climbers both English and foreign.

The year 1888 was the most successful Caucasian year. Three English parties, favoured with good weather, which is a rarity in that district, managed to surmount, besides many others, the peaks of Skara, Janga, Koshtantau, and Ushba. Sad to tell, the mountains took a terrible revenge, for a whole party, consisting of Messrs. Donkin and Fox with their Swiss guides, entirely disappeared whilst attempting Koshtantau (16,880 feet).

The loftiest Caucasian peak Mount Elbruz rises about 18,470 feet above sea-level, and its lower or eastern summit was reached in 1868 by Messrs. D. W. Freshfield, A. W. Moore, and C. Comyns Tucker. The highest point was attained by Messrs. F. C. Grove, Horace Walker, F. Gardiner, and a Zermatt guide in 1874, and no serious difficulty was met with by either party. Elbruz is evidently an uninteresting mountain, and compared with Ushba and its neighbours it stands in much the same relation as Mont Blanc does to the Dent Blanche.

The great Andes of South America were first seriously explored by Mr. Whymper in 1879 and 1880, though Humboldt had visited them early last century. The conqueror



A. E. Lightbody

TUPUNGATO THIRTY MILES AWAY
TELEPHOTO VIEW

of the Matterhorn was as successful in the Andes as in the Alps. Twice he ascended Chimborazo (20,476 feet), besides visiting and making his home for one night on the summit of Cotopaxi (19,613 feet). Half a dozen or more high mountains were climbed, and the expedition brought back an immense amount of scientific information, including geographical knowledge, observations on the effects of great heights on the human body, and excellent examples of the geology, fauna, flora, and anthropology of the districts attained.

Probably the most remarkable sight the expedition beheld was that of Cotopaxi in eruption, as seen from the top of Chimborazo. "A great black column of inky blackness went up into the air with prodigious velocity from the mouth of the crater." They saw over 10,000 feet of the volcano, and estimated the height of the column to be double the height of the visible portion of the mountain. Judging from the thrilling description, the effect of sunshine and clouds on this huge pillar of fire must have been the sight of a lifetime.

Aconcagua (23,080 feet), the highest known peak in South America, had often attracted the attention of explorers, but the Swiss guide Zurbriggen and Mr. Stuart Vines were the first to tread its summit snows. They were members of Mr. E. A. Fitzgerald's expedition of 1896-1897, and several smaller heights were ascended. Tupungato (21,550 feet) was the most important of these.

Sir W. M. Conway visited the Cordilleras in 1898, and performed much exploratory and scientific work. His most important ascent was that of Illimani (21,200 feet), and the great peak of Sorata, at the other end of the chain, was assailed. The celebrated mountain explorer also climbed to within a few feet of the topmost ridge of Aconcagua, and considered that he had conquered the peak. His reasons for not finishing the climb were, Pelissier's (the guide's) illness, and that the ascent by Zurbriggen and Vines being the record for altitude, he feared that he would be accused of jealousy. Unfortunately, Mr. Fitzgerald claims that his party made the only complete ascent of Aconcagua, and, technically speaking, his contention must be accepted as correct.

In North America a vast range of mountains stretches from far south of the United States to Alaska. Mount St. Elias

(18,092 feet) is the most notable culminating point in the icy north, and its ascent was the object of the Duke of the Abruzzi's expedition in 1897. A tremendous expanse of slightly sloping glacier had to be crossed to reach the peak. On the 1st of July of that year they landed (literally) on the Melaspina glacier, and after covering a distance of thirty-five miles from the coast, and spending sixteen days on the journey, they had only gained a height of 3,000 feet. They then reached the steeper Newton glacier, and thirteen days later approached the *col* between Mount Newton and Mount St. Elias. On 30th July they stood on the longed-for summit, and the Italian flag was left floating in the arctic breezes. The descent was made in quick time, and on the 10th of August they reached the small moraines near the coast-line after forty days and nights spent on ice and snow. Truly this was a remarkable *tour de force*, and we do not wonder that the Duke of the Abruzzi has since been nearer the North Pole than any other human being.¹ The surprise from a climber's point of view is that on this occasion he did not traverse the Pole and come down on the other side.

Mount M'Kinley, which rises in Alaskan territory to a height of nearly 20,500 feet above sea-level, is supposed to be the loftiest peak in North America. Dr. F. A. Cook, who was connected with the Peary Arctic expedition, succeeded in reaching its summit in the autumn of 1906. He described Mount M'Kinley as the steepest and most arctic of the great mountains of the world.

Dr. Norman Collie said some time ago that the Canadian Rockies, by reason of their natural beauties and attractions, must become the Switzerland of North America. Our "cousins across the pond" are quickly realising his prophecy, and several American climbing clubs are already invading their remotest sanctuaries. Dr. Collie and his various parties have set them a splendid example, and a large number of the first-class peaks have yielded to his persistent endeavours. Mount Assiniboine (11,839 feet), for long called the Canadian Matterhorn, is an exception, for it was first climbed in 1901 by the Rev. J. Outram with two Swiss guides.

¹ Some members of the Peary expedition are reported to have penetrated a few miles further in 1906.

The Rockies are in extent vastly greater than the Alps, and it is not at present known which is the highest peak. The average height of the mountains is about 10,000 to 11,000 feet, and Mount Forbes in the northerly part of the group is generally supposed to be the loftiest, its summit standing nearly 14,000 feet above sea-level.

The recent formation of an Alpine club in New Zealand, and the work of its enthusiastic members, leads me to make a reference to their mountains. Mount Cook (Aorangi) is the highest peak in the New Zealand Alps, and the Rev. W. S. Green with two Swiss guides first climbed its lower peak in 1882. The height is only 12,350 feet, but not until 1894 did the colonists gain the final summit. The next year Mr. E. A. Fitzgerald and Zurbruggen visited their central Alpine chain and made practically the first ascents of all the chief peaks. I am afraid the New Zealanders play football better than they climb mountains.

The mountains of Africa have scarcely received due attention, if we except those of which the Boers made ascents, such as Spion Kop and its neighbours. Now that more peaceable times have arrived, the members of the flourishing South African Mountain Club can enjoy their sport without the additional danger of being "sniped" by a Mauser bullet whilst negotiating an exposed place. However, there are high mountains in other parts of Africa, and Kilima-njaro, Kibo, Mawenzi, Kema, and Ruwenzori are the most notable of these. The three former were ascended in 1889 by Herr Purtscheller and Dr. Meyer, and Kibo (19,700 feet) was given as the highest peak of the chain. The mountains of Central Africa were explored by Mr. J. E. S. Moore with the Tanganyika expedition in 1899 and 1900. Ruwenzori was climbed in 1906 by a party under the leadership of the Duke of the Abruzzi. About the middle of June of that year his party trod the summits of the two highest peaks and named them respectively Margherita (16,810 feet) and Alexandra (16,744 feet).

Somehow we do not look on Japan as a mountainous country, but the principal island possesses a central chain with several peaks over 10,000 feet high. The Rev. Walter Weston travelled over these between the years 1891 and

1894, and he has written an entertaining book on the subject.

Norway has recently been called "The Northern Playground of Europe," but its attractions for the average mountaineer are scarcely likely to rival its southern prototype. Professor Forbes and Lieutenant-Colonel Campbell were the early pioneers of the Viking peaks and glaciers. Since their day Mr. W. C. Slingsby has continued the work, and he may almost be called the father of Norse mountaineering. Mr. C. W. Patchell has also helped to dispel the inaccessibility of many of the more difficult peaks, whilst in 1898 Mrs. Main and her two Swiss guides showed that Northern Norway is suitable for mountaineers of the gentler sex.

In the Lofoten Islands rock-climbers can enjoy their sport within the Arctic Circle, and this is the more remarkable when one remembers that these islands are over a hundred miles nearer the North Pole than the most northerly part of Iceland. Our good friend the Gulf Stream is responsible for this, and taking advantage of this climatic peculiarity Dr. Collie and his companions have made ascents that compare in interest and difficulty with the Chamonix aiguilles.

Two expeditions under Sir Martin Conway's direction visited the mountains of Spitzbergen in 1896 and 1897. Several successful ascents were made, the most important being Mount Hedgehog.

However, "'tis a far cry" to these northern latitudes, and I cannot think that any but the best of sailors, who are also blest with holidays of an indefinite length, will find the Northern Playground worth a visit.

There is talk in these days about the desecration of the Swiss Alps, and exhausted centres both there and elsewhere. It is almost true that the once beautiful solitudes of the Little Scheidegg above Grindelwald bid fair at times to rival Clapham Junction, and one can scarcely think that the railway up the Gorner Grat is altogether an improvement from an æsthetic point of view. Still, there are many counterbalancing advantages, and personally, for an ascent of the Eiger or Monte Rosa, I would gladly accept a lift from either of the railway services that spare one the exhausting grind up the hot, lower slopes from the valley. Regarding exhausted centres, I have



THE HIGHEST MOUNTAINS IN THE WORLD

MOUNT EVEREST (29,002 FEET), TELE-PHOTOGRAPHED FROM NEAR THE NEPAULESE BORDER, OVER A
HUNDRED MILES AWAY

never yet been able to discover one; even Zermatt, with its so-called "over-explored mountains," has inexhaustible climbs on the great peaks and ridges that tower above it. However, to those who think differently, I would suggest a trip to the Himalayas, for many generations of climbers must come and go before these vast ranges can be exhausted.

A brief glance at the history of these, the greatest mountains in the world, will prove a fitting conclusion to our survey of modern mountaineering. Vast as are these great ranges, they form but a small section of the mountains of Asia; the stupendous peaks of Chinese Turkestan and Tibet are absolutely unexplored, and it is generally believed that amongst the latter there are at least two peaks higher than Mount Everest.

The Himalayas are practically the northern frontier of India; until quite recently they have been almost neglected by mountaineers, though Sir Joseph Hooker, the Schlagintweits, and other explorers of the higher regions had done some useful work.

The earliest genuine climbing expedition in that district was undertaken by Mr. W. W. Graham in 1883, and strangely enough his ascent of Kabru in Sikkim to nearly 24,000 feet stands at present as the highest climb on record. His was purely a "sporting" expedition, and no scientific observations were made; in fact Graham would probably endorse the opinions of another famous climber, the late A. F. Mummery, who had "only the vaguest ideas about theodolites, and, as for plane-tables, their very name was an abomination."

The Karakoram range, which is dominated by Mount Godwin-Austen (28,250 feet), the second highest known peak, was the object of Sir W. M. Conway's party in 1892. With the Hon. C. G. Bruce, the guide Zurbriggen, and two Gurkhas, he gained the summit of Pioneer Peak, nearly 23,000 feet in height. They also traversed the three chief glaciers throughout their length, and crossed the Hispar Pass, the longest glacier pass in the world.

The loss of the greatest of British rock-climbers, Mr. A. F. Mummery, in 1895 on Nanga Parbat, is still fresh in our memories. With the Hon. C. G. Bruce, Mr. Geoffrey Hastings, and Dr. Collie, he visited the peaks on the Kashmir frontier.

His ascents up rocks as difficult as the Chamonix aiguilles to nearly 21,000 feet on the Mazeno side, and his attempt on Nanga Parbat, must rank as the most remarkable performances of modern times. A noteworthy feature of these climbs was the absence of mountain sickness, thus proving that a physically suitable man can undergo severe exertion at that great altitude.

After these climbs Mr. Mummery decided to cross to the farther side of Nanga Parbat, in hopes of there finding an easier route to its summit. Taking with him two Gurkhas, he left his companions with the intention of journeying up the Diamo glacier, and crossing over the supposed pass of that name. The rest of the party travelled by another and longer route, and arrangements were made to reunite forces by the side of the glacier in Rakiot Nullah. After some delay, the second detachment reached the appointed resting-place, but no traces of their companions could be seen; in fact they agreed that the route, which was now visible, by which Mr. Mummery had hoped to descend from the Diamo Pass, was impossible. We shall probably never know the cause of their sad loss, but Mr. Mummery and the two Gurkhas have never been seen or heard of since they bade *au revoir* to their friends on the Diamirai glacier beneath the shade of those mighty crags of Nanga Parbat.

The visit of Mr. Douglas Freshfield and his party to the Sikkim Himalayas next deserves notice. His intention was to make the tour of Kangchenjunga, the third highest known peak (28,156 feet), from Darjiling, and the most noticeable feature of this expedition was its complete success. A vast amount of unexplored country was traversed, and in crossing the Jonsong La they reached a height of about 22,000 feet.

The next noteworthy expedition visited the Karakoram in 1902 and 1903, and consisted of Dr. Hunter Workman and Mrs. Fanny Bullock Workman, with several Swiss guides. Little of importance beyond exploration was done in the first year, but in 1903 they ascended the Chogo Lungma glacier, and were able to camp out in good weather at an altitude of 19,358 feet.

From this vantage point Dr. Hunter Workman was successful in attaining a height of 23,394 feet on Pyramid

Peak, and the intrepid lady-climber accompanied him to a point about 700 feet lower.

Another party, consisting of Englishmen¹ and a continental climber without guides, also visited the Karakoram in 1902. According to an impetuous halfpenny newspaper, the first peak to be climbed would be Godwen-Austen (28,250 feet); afterwards the party would attempt Mount Everest, the highest mountain in the world. Needless to say this was not the opinion of the members of the expedition, for they well knew that the two peaks are separated by nearly two thousand miles of the roughest mountain country in the world. However, bad weather spoiled their programme, and after spending eight weeks at an altitude of about 20,000 feet, they returned valleywards. To give an idea of what bad weather means on the highest mountains, it may be noted that during all those weeks they only saw the sun eight times, and then never for more than two consecutive hours. One snowstorm lasted for a hundred and fourteen hours without cessation of any kind; it then stopped for twenty minutes, but after this respite it resumed operations for another hundred hours. This might well be called the record snowstorm, and the belated mountaineers computed the depth of the new snow to be at least 25 feet.

Kangchenjunga is by far the most accessible of the greatest peaks, and its conquest is at present attracting the attention of several parties.

In 1905, Mr. Allister Crowley with some friends essayed its ascent. Minute descriptions of their plans and prospective achievements appeared in a popular English newspaper from time to time. Unfortunately, one of the mountaineers and some coolies were carried away by an avalanche, which they themselves started, and the loss of life thus entailed led to the failure of this unsatisfactory expedition.

Dr. T. G. Longstaff has recently achieved considerable success amongst the Kumaon peaks of the Himalayas. A telegram received in the June of 1907 reports that he has reached the summit of Trisul, 23,406 feet in height, and he thus shares with Mr. Graham the honour of making the highest climb on record.

¹ Messrs. A. Crowley, O. Eckenstein, and Guy Knowles.

CHAPTER III

EQUIPMENT AND HINTS TO BEGINNERS

“To climb steep hills requires slow pace at first.”—SHAKESPEARE

IT is nearly eighty years since Alexander Dumas spoke of Jacques Balmat as the Christopher Columbus of the Alps. Though somewhat hyperbolic, this idea might naturally suggest a certain analogy between the navigation of the boundless ocean and travel amidst the vast crags and everlasting snows of the high mountains.

The pages of the preceding chapter to some extent show the progress of the sport of mountaineering up to the present time, and most of the great lessons of the craft have now been learnt, though not without great sacrifice of many useful lives.

What Rudyard Kipling has said of the lordship of the sea is, in spirit, true of the lordship of the mountains :

“We have fed our sea for a thousand years,
And she calls on us still unfed,
Though there’s never a wave of all her waves
But marks our English dead.
We have strawed our best to the weed’s unrest,
To the shark and the sheering gull;
If blood be the price of admiralty,
Lord God, we have paid in full!”

Having thus begun with a warning, I may proceed to the more practical details of our climbing craft, and at the outset it is well to remember that one of the best means of obviating the greatest dangers of our sport is by having throughout as perfect and up-to-date an equipment as possible.

Boots.—A famous writer of military stories makes one of his heroes say, “A soldier is no better than his feet.” This is equally true of a climber. I have no hesitation in saying that a pair of properly nailed boots are, or should be, the most

important details of a climber's outfit. There is an unwarranted opinion amongst some climbers that English bootmakers cannot turn out work equal to that of a Swiss *cordonnier*. No doubt this opinion is fostered by certain up-to-date technical literature. If we except the Alpine club rope, we may say that many authorities hint that no good thing can come out of England in the way of mountaineering equipment. Motorists suffer from the same sentimental fashion, but I am glad to say that in both sports we are beginning to realise the true worth of British workmanship. Over and over again I have seen a pair of Zermatt-made boots collapse completely after one season's wear, whilst my own "home produce" has at present stood three years' hard service, not only abroad, but on the much more trying British mountains. I am loth to mention any makers' names, but the question is of such importance as to warrant the remark that perfect mountaineering boots properly nailed can be obtained from Mr. H. Harden, boot-maker, Keswick, or from Mr. J. S. Carter, 16 South Molton Street, London, W. Dealing with the construction of the boot, the leathers for the uppers should be the best zug or chrome, soft and absolutely waterproof. The heels should be low, and they, as well as the soles, should project fully a quarter of an inch beyond the uppers when new, for even with this allowance they will become almost flush with the uppers after a few days' use. The laced pattern is preferable, and the tongue must be so sewn as to be watertight to the top. The tab at the back should be of strong leather. Spare boot-laces, besides serving for their appointed duty, are articles of general utility. There is no more trying experience after the first day's climbing than to find that half, or even more, of the nails have gone from their lately appointed resting-place in one's boot-sole. The nailing of climbing boots is a fine art. The greatest skill is required in driving the nails direct, for it is imperative that no hole should be previously bored in the leather, otherwise they will come out sooner or later, generally sooner. This is the one secret of successful nailing, and the other is the composition of the leather that forms the sole. The exact nature of this is a question for the expert in mountain boots, and I can only warn the beginner against accepting the usual soft leather which may probably be offered

to him. Boots advertised as having waterproof soles should be avoided, the process of waterproofing the soles rendering them too spongy to hold the nails for any length of time.

The accompanying illustration shows my own personal idea of the right arrangement of the nails, and the kind to be used. These, especially the outer row, should be of wrought-iron, not cast-iron or steel, such as are often used both at home and abroad. It will be noticed that the outer nails overlap and thus secure each other firmly, and they continue round the sole as far as the heel. I am strongly averse to the use of large nails for the inner part of the sole. They are a danger in many ways, notably in rock-climbing, specially that of a difficult order, because they protrude and cannot suitably be driven close by the outer nails so as to allow these to properly grip the smaller footholds. It will be obvious from the illustration that the row of lesser inner nails will steady the foot on small holds, and grip collectively with the outer nails. The bulky hob-nails are also inclined to be felt through the sole, and cause painful feet. The heels are generally garnished all round with the outside nails, and the large pattern can be used for the inner section.

Some authorities recommend two pairs of boots, and also advise their being kept "in pickle" for a few months before they are used. These are somewhat luxurious theories, but no doubt they are quite sound, though my English-made pairs have never needed or received such consideration.

A useful hint for drying the boots thoroughly after a wet day on the mountains is to fill them with oats or even straw. Next morning they will be found to have retained their shape and suppleness. Judicious oiling will further improve them. Various forms of "foot grease" are used in different mountain resorts. Any kind of fatty refuse is often considered good enough, and as the laces generally receive a liberal smearing, it will be obvious that after breakfast is the best time to don one's pedal gear. At home one can use a more cleanly substance, such as sperm oil, and I have always found that this serves the purpose well.

Climbing boots are not fragile, and therefore need no protection in packing, but stout cloth bags are necessary to



A CLIMBING GROUP

prevent them from contaminating the whole contents of one's portmanteau.

The Rope and its uses.—The rope may be considered next to the boots in order of importance. Of course many people may disagree with me here, specially those pseudo-mountaineers who, as a sort of penance at the altar of fashion, are pulled and pushed up some popular Alpine peak by several guides. To such, the rope is of primary importance. It is almost a truism that if it were not for the rope, half of the tourists who go up the Matterhorn would never reach the bottom again except in pieces.

The choice of the best climbing rope is a simple matter, for there is only one make to recommend. This is the famous Alpine club rope with the red worsted thread running throughout its length; and the sole maker at present is Mr. Arthur Beale (late John Buckingham), 194 Shaftesbury Avenue, W.C. It is made with three strands of the best manilla hemp, specially prepared to resist damp rot, and lengths of 40, 60, 80, and 100 feet are generally kept in stock.

For ordinary ascents in the Alps not less than a 60 feet length would be necessary for a party of three; but for the more difficult courses, especially on rock peaks such as the Chamonix aiguilles, fully 80 feet would be required. When undertaking these latter expeditions a spare length should also be carried, for it will often prove useful, notably in descending exceptionally difficult or overhanging places. The last man can save much time in such places by looping the rope around a suitable rock and using its free ends as holds to facilitate his downward progress. By hauling one of the loose ends, the rope can easily be pulled downwards after him. As Alpine club rope weighs only about 1 lb. per 20 feet, the weight of an extra length of rope is almost negligible.

All ropes should be minutely examined from time to time, and promptly discarded when signs of fractured strands appear. A new rope has a stupid way of twisting itself into most complicated kinks and tangles, specially when used under damp conditions. This trying habit may be cured after the first wet day's climb by arranging for an impromptu tug-of-war to thoroughly stretch the rope. If it is then hung out to dry at full length with the kinks thoroughly

straightened out, little trouble will be encountered on the second day's climb.

A few tests which have been recently made as to the strength of an Alpine club rope when new may prove useful and interesting.

The "bowline" is recognised as the most satisfactory and strongest knot of the simpler varieties, and in the tests for the Alpine Club Report for 1892 the strength of this knot is given as 72.4 per cent. of the full strength of the rope. The rope always broke at the knot, and in the recent tests this happened with a dead load of 1520 lb. The trials in 1892 gave a result of 1545 lb., so that the later experiments showed the rope to be slightly weaker, but as 1520 lb. is more than the weight of nine eleven-stone men, the rope is apparently more than powerful enough to hold any dead weight that is likely to be encountered in climbing practice.

In determining its ability to resist the sudden shock of stopping a falling body, a large iron weight was used and the other end of the rope was attached to a sling round a wooden beam. After carefully allowing for the stretch on the rope and other details, the calculations showed that it would just refuse to break and no more with an eleven-stone man falling about $9\frac{1}{2}$ feet; and I believe this is about the same result as that obtained for the Alpine Club Report in 1864.

In climbing, the most severe test which is likely to occur would be that the leader should fall vertically whilst the rope is belayed around a firm outstanding rock. In such a case the length of the rope between the hitch and the knot round the leader's waist would be about half the length of the fall. Assuming the "belay" to be of an obtuse nature, a pressure of over 13 cwt. will come on the ribs of a falling man before the rope will break. Whether the human anatomy could stand such a jerk is very doubtful, in any case it must be a problem for the doctors.

The question of knots next demands attention, and of these an almost endless variety are used by climbers. All knots should be tied with the lay of the rope. The "bowline" and the "reef" are mostly favoured for the two men at the ends of the rope, whilst the "middle-man noose" is the best for the intermediate members of the party.



Abraham

FIG. I

FIG. II

FIG. III

THE MAKING OF THE MIDDLEMAN NOOSE

THIS IS THE MOST SATISFACTORY KNOT FOR USE IN ANY POSITION ON THE ROPE. FIG. I SHOWS THE FIRST MOVEMENT, WITH THE ROPE LOOPED IN TWO BIGHTS; FIG. II ILLUSTRATES HOW ONE BIGHT IS BROUGHT IN FRONT OF THE OTHER, AND THE NOOSE COMPLETED BY PULLING THE CROSS STRAND A THROUGH IN THE DIRECTION OF THE HOOK. WHEN IN POSITION—FIG. III—THE KNOTS ARE EASILY TIGHTENED UP ALTERNATELY

Incidentally I may say that the Swiss guides' ideas of knots are primitive in the extreme, and I have never met one who could make the "noose." They are keen enough to learn, but the simple overhand loop is so much easier to make, and they say that this knot has never been known to break in actual practice.

It is very difficult to acquire the knack of making the "middle-man noose" from descriptions or diagrams, but I trust that the accompanying illustration will help to solve the problem. The best way to learn is to get a patient and knowing friend to explain and illustrate the process of making the knot with a piece of string. The "noose" can also be adapted for use at the end of the rope; it is recommended on account of its superior strength.

The popular idea of the use of the rope is generally as erroneous as it is amusing. I once heard a voluble young gentleman enlightening some friends at Zermatt by saying, "Ah! yes, they use the rope to prevent them from losing each other, and when they come to the glacier they take hold of it and climb up it!" Others have an idea that in some way the rope is thrown up somewhere, and the climbers swarm up it. In fact we are supposed to rival the wonderful Indian fakirs who, so travellers say, take a coil of rope, throw it into mid-air, climb up it, and then pull the loose end after them. Unfortunately, this is a lost art in Europe at the present day, and we have to content ourselves with more ordinary methods.

Briefly stated, the rope is used to secure the safety of the whole party (see illustrations, pp. 66, 117), and when roped it may be noted that the ability of the party is, roughly speaking, equal to that of the leader. Thus the proverbial idea that a chain is only as strong as its weakest link does not apply strictly to a united climbing party. However, if no rope is used, the less experienced members of the party are induced to run unjustifiable risks. Fortunately in these days, one scarcely ever hears of such methods, though there have been tragic exceptions, and it must be pointed out that a terrible responsibility rests on those climbers who, though unroped, attempt ascents with less skilful companions.

Assuming that a properly roped party are attempting a difficult rock-climb, it must be understood that the very best

man should be leading, and that *only one climber should move at a time*. On even the most difficult routes yet made, there are ledges at intervals where the leader can safely stand or sit and hold the rope whilst the second climber ascends to his level.

If there is any danger of a slip, the rope should be held firmly even to the point of hauling slightly, but this, if it is possible to work the rope around a projecting piece of rock, may not be necessary. It is astonishingly easy to support the weight of a dangling companion, if the rope is thus secured, and even the friction of it over a rough slab sometimes makes the weight almost imperceptible, if there is no direct jerk when a slip occurs. Thus, if the leader succeeds in surmounting a difficult stretch, the rope properly used enables his companions to follow in safety. On snow and ice the same principle applies to a greater or less degree. The more minute practical details in the use of a rope will be dealt with in following chapters on rock-climbing and snow-craft.

In concluding this section I may point out that the rope should be closely tied round the climber's waist. The following story will show that this advice is not altogether unnecessary.

The son of a famous Alpine guide, who lived on a remote district, was called upon in his father's absence to take a party of ordinary tourists across a much-crevassed snow-covered glacier pass to another valley. He had lived from home in the lowlands, and knew little of climbing, and still less of how to use a rope or even where to tie it. Curiously enough, he chose his patrons' necks as a suitable place, and this strange party of four innocents was encountered on a glacier by a party of English climbers. As the rope is used in such places to prevent a sudden fall through the snow into the hidden crevasses, it is small wonder that the members of that climbing party claim to have saved at least one of those four beginners from strangulation.

Ice-axe.—Mountaineers are sometimes inclined to grumble at our British mountains because of their lack of glaciers and perpetual snow. However, this is but a fault of the age in which we live. A genial scientist has recently prophesied a return of the ice-age in some hundred thousands of years, but this cannot affect the modern mountaineer seriously, and we still have to go abroad to learn step-cutting and snow-craft thoroughly. No

doubt when our homeland mountains rejoice in these improved conditions, an industry for the manufacture of ice-axes will spring up in England, but at present one has to go to Switzerland and the neighbouring Alpine regions for the best and only serviceable ice-axes.

The expert climber will be as "faddy" over the choice of this implement of equipment as the cricketer over his bat, or the golfer in the selection of his driver. However, the beginner may appreciate some practical advice, and the points of an ice-axe are worth attention, specially if one is at all likely to sit down on the business end of one; of which more later.

The balance of the axe demands foremost notice. To secure efficiency in actual step-cutting, it ought to balance about 14 inches from the head. The wood-stock or shaft should be made of carefully-selected, straight-grained ash. The head of the axe, which comprises the blade and the adze or pick (see illustration, p. 30) ought to be of wrought-iron tipped with steel. Careful tempering is necessary to obtain the required degree of softness; if the metal is brittle it will soon be damaged and broken, especially in those rock-passages which occur during almost every mountain excursion. The spike is generally screwed into the opposite end of the shaft and secured by a wrought-iron ferrule. Some makers fix a leather rim around the lower part of the shaft to prevent the hand slipping, whilst others ornament it with a wooden protuberance. Both are unnecessary; in fact they might be removed before use, for they interfere seriously with one of the most important uses of the ice-axe, namely that of probing to sound for hidden crevasses or testing the condition of the snow (see illustrations, pp. 78, 81). India-rubber handle-covers such as those used on a cricket bat have been recommended to ensure a firm grip of the shaft. I once took one of these luxuries up the Zinal Rothorn, but none of it came back to Zermatt. The last shreds of it were left on the rocks above the lower glacier, and a few days later some guides saw some of the hungry crows that haunt the mountain hut there wrangling for the scraps, whilst others, evidently the victims of indigestion, fluttered painfully over the moraine.

However, to return to the head of the axe, it may be mentioned that the pick is the important feature of the instrument, and it is used for step-cutting in ice or very hard

snow. It should be slightly curved and not less than 6½ inches from its tip to the centre of the shaft. There is no need for teeth on the under-surface of the pick. The blade may be an inch or so shorter than the pick, and its main uses are for scraping steps in snow of moderate consistency, and as a support whilst traversing or climbing steep slopes. The lower side of the blade is sometimes roughened, probably no one knows why, though Dr. Claude Wilson suggests it may be for striking matches on.

The novice should choose a light axe, not exceeding 3 lb. in weight, as this can be carried and manipulated with greater ease. The expert will generally prefer a heavier one, especially if he be addicted to climbing without guides. The height of the climber should determine the length of the axe; a six-foot man would find 44 inches quite long enough. Such a size would be useful in descending easy snow and ordinary mountain slopes, but for all other purposes a shorter one might be advisable. This is, after all, a matter for personal choice. It may be noted that, though Swiss axes are generally made far too long, and some Austrian specimens even longer, it is an easy matter for an ordinary cabinetmaker to take a few inches off the bottom of the shaft and refix the ferruled spike safely.

Many annoying accidents have happened through climbers stumbling and falling on their axes whilst descending easy mountain slopes. For instance, in the winter time on our British fells, small icy patches often decorate the grassy slopes, and in the uncertain evening light they are difficult to detect. Even the expert may suddenly find his legs in the air and his back making sudden contact with the icy slope. Under such circumstances it will be readily understood that a sharply pointed axe may inflict serious damage, and for this reason, as well as for better service in step-cutting, a blunt axe is advisable.

The axe-fiend has been immortalised in mountain literature and illustration, but perhaps a hint on how to carry an ice-axe on the mountain-side and at lower levels may be appreciated. As a rule, the novice starts out with his new implement held more or less horizontally in his hand, and he goes off at a swinging stride with the head of the axe in full view in front,

whilst the spike is probably ready to puncture anyone who walks innocently behind within range of its swing. The tyro may spend days in smearing his latest toy with muddy soil or other mixture to destroy its glaring effect of newness, but he immediately betrays his novitiate by his mode of carrying his ice-axe. The expert carries his axe with the head tucked tightly between his arm and body, whilst the spiked shaft projects forwards and downwards. Carried thus it can scarcely be considered one of the dangers of the Alps, for he can at once see if anyone is likely to come within the danger zone.

The ice-axe is a nuisance whilst one is climbing rocks, but it often has to be tolerated on high mountains, so that it may be available when snow and ice intervene. Such conditions call for the use of a sling, attached to one's hand or wrist, by means of which the axe can be carried up the rocks. Leather slings are sold, but they are unsatisfactory, because after a thorough wetting they become hard and unpleasant to use. Hemp slings are now obtainable in the Alps, and they prove much more satisfactory. Whip-cord or thick string fixed to the head of the axe by means of a clove-hitch makes the best form of sling, and such a loop on the head of the axe will not incommode the climber seriously in cutting the few steps that usually are required on a rock mountain. A leather covering for the head of the axe and a cork for the spiked end, will help to make it a safe travelling companion even on a crowded channel steam-boat. During the off season an ice-axe should not be stored in too dry an atmosphere. The shaft may be treated like a cricket bat with linseed oil, and the metal parts will retain their respectability if they are liberally smeared with a covering of ordinary vaseline or mutton fat.

Rucksacks.—The days of the old-fashioned chest-constricting knapsack have gone, and even ordinary pedestrians are beginning to appreciate the advantage and convenience—I had almost said the pleasure—of carrying a rucksack. Ere long it is to be hoped that our military rulers will have pity on Thomas Atkins and fit him out with such an article of equipment for long marches.

Roughly speaking, a rucksack is an ordinary bag generally made of Willesden canvas, and it has or should have adjust-

able leather (not webbing) straps, for suspending it from the shoulders. A convenient size is 24 inches long by 22 inches wide, and its interior should be lined with waterproof mackintosh. This lining ought to be left loose at the top and threaded through with a tape for tying up the opening, thus keeping the contents of the sack safe from the inroads of moisture.

A useful hint for those who suffer from cold feet when spending the night at a mountain hut or in the open, is to empty the rucksack of its contents and place their feet inside. If the flap of the mackintosh lining is closely tied around the leg, the lower extremities keep very warm. In fact stockings can be dispensed with, and if, as is often the case, they are wet, they may be hung up to dry meanwhile.

Lantern.—The small folding variety known as the "Excelsior Lux," and designed by some members of the Italian Alpine Club, is an almost indispensable companion on the mountains. Its transparent sides are fitted with mica, a handle is fixed at the top for carrying purposes, whilst in the bottom there is a hole with spring clips to fit the ordinary size of carriage candles. As these small lanterns when closed are scarcely larger than an ordinary pocket-book, there is no excuse from the standpoint of bulk for leaving them behind during an expedition.

For winter mountaineering in Britain one should always be carried, as the duration of daylight is then limited. If this is not done, many climbs are impossible especially for a large party. The lantern, candle, and a supply of dry matches should be carried by one person, for, if not, on the return journey darkness may come on quickly and, when the light is needed, one or other item is sure to be in the possession of some straying member of the party. A suitable brand of matches is that known to smokers as "the kind that will not blow out."

The Excelsior or any other lantern is very difficult to keep alight in a high wind. This trouble may be obviated by wrapping a white pocket-handkerchief around it. Natural moisture is usually too abundant under such circumstances, but if not the handkerchief may be soaked in the nearest stream to give it extra transparency.



Abraham

A CUMBRIAN SNOW CLIMB, UP THE CENTRAL GULLY ON GREAT END

Goggles are a *sine qua non* of Alpine climbing, for without them the glare of the sun on the snow quickly leads to painful eyes and snow blindness. The glasses should be of a neutral tint, not blue in colour. The metal edges are frequently left bare, and thus the face, where contact is made, will be liable to become sore especially on a hot day; or, still worse, in bad weather. All points of contact with the skin should be velvet-covered, and this material is better than elastic for the loop over the nose. If one of the glasses is broken, a piece of cardboard or the back of a matchbox with a thin horizontal slit in it can be used as a substitute. The novice will find difficulty at first in seeing plainly whilst wearing goggles. Habitual use of them amongst the easier snow conditions of our British mountains will accustom him to their peculiarities.

A drinking-cup, if made of rubber, is easily carried. The only objection to this most convenient form of cup is the difficulty of destroying the taste of the rubber. Personally I have always found that immersion in a strong mixture of coffee does this most effectively, the more so if the treatment is continued for two or three days. Aluminium cups possess the advantage of lightness, but they are easily crushed if sat upon.

Larger cups are generally made of leather, and are known in Switzerland by the name of *bateaux*; *Dampschiff* is the word used by many of the German-speaking guides. An excellent variety made of red rubber can sometimes be bought at the Zermatt bazaars.

The question of what to drink on the mountains is an important one. Of course the ideal would be to eschew all liquid refreshment, for the transit of such things in the Alps is a troublesome matter. The drinking water in Switzerland is mostly of doubtful purity, and even teetotallers would be well advised to take in preference the *vin ordinaire*, either red or white. A mixture of red wine and lemonade is a favourite beverage with many climbers who cannot "tackle" either of these separately.

Cold tea is excellent for ordinary expeditions, but it should be made by the climber himself, and poured off the leaves before it becomes a disagreeable concoction of tannin. This drink is not recommended by Swiss hotel proprietors, and

many guides look on it with disfavour. They prefer the *vin de pays*, and as a goodly proportion of the contents of the Herr's bottle is apt to be appropriated by the professionals of the party, it is easy to understand why temperance drinks are tabooed.

It is an advantage to possess a collapsible gourd of some kind for carrying the selected beverage. The best thing for this purpose is a leather bottle made in the Pyrenees; the hairy side of the skin forms the interior. These are difficult to procure, but many of the leading guides will sell them or know where one can be secured. Pig-skin gourds are generally obtainable in the shops at the leading Alpine climbing centres.

Climbing-irons (Crampons or Steigeisen).—These consist of a framework of the best steel ornamented with a number of large spikes, and, if made properly, are easily detached from or affixed to the boot-soles, somewhat like a pair of skates. Continental amateurs use them considerably, and they find them no doubt useful, for under certain conditions of hard snow step-cutting becomes unnecessary. To be of any real service a pair must be possessed by each member of the party; many climbers are strongly opposed to their use. Englishmen and, as a rule, Swiss guides also, look on them unfavourably, and recent disasters in the Alps probably justify this opinion. Steel spikes to screw into the sole of the boot were favoured by the late A. F. Mummery for the same purpose, and those who are anxious to experiment on the effect of crampons can easily do so by using these substitutes.

A good compass mounted in a small but strong case is indispensable. A luminous dial will prove helpful on a dark night. The wristlet compass is not to be recommended.

An aneroid is of little practical service for determining heights accurately, but it is an entertaining instrument to carry if one is snow-bound for some days in a mountain hut; its rising propensities may even lead the enthusiast to wait until the fine weather comes.

Maps.—For the Swiss mountains the Siegfried map is the most perfect of its kind. The Italian, Austrian, and French Governments also publish maps of those portions of the Alps that adorn their respective countries. The splendid Kurz-Imfeld map of Mont Blanc is a new production, and climbers

visiting Chamonix will find it most reliable. All these maps and any needed for British climbing can be secured at Messrs. Stanford, Cockspur Street, London, who also supply a suitable waterproof case for carrying the same.

Many other minor articles of equipment, such as pocket-knives, cooking-outfit, field-glasses, spirit flask, etc., scarcely require distinctive mention, for such things are mostly a matter of personal choice and common-sense.

Clothes.—Extreme changes of temperature and weather come with astonishing suddenness on most mountains. On a calm sunny day 14,000 feet above the sea, it is often so oppressively warm that one may become troubled with the handling of the hot sun-baked rocks, and even yearn to discard all garments. But in an hour's time a cold north wind may come whistling through the crags, and every drop of melted snow be sealed in its icy embrace. To meet such conditions, warm woollen underclothing is absolutely necessary. In fact the climber's apparel throughout should be entirely of wool, though it may be found necessary for the sake of a stronger texture to procure coat and knickerbockers containing a small proportion of cotton.

The Norfolk jacket is undoubtedly the best form of coat, and it should contain at least six pockets made by preference of strong flannel. Some authorities advocate a large game pocket running all round the back of the coat, but it has serious disadvantages for certain forms of rock-climbing, and in making sitting glissades it is very liable to get choked with snow. A smaller game pocket on each side of the jacket is advocated by many authorities. All pockets are better if made to fasten with buttons. A tab should be provided to button across the neck, and the same arrangement may be used on the wrists to prevent the snow blowing up the sleeves. In really bad weather pieces of string are preferable for tying around the sleeves, in fact many climbers use nothing else, as the cloth tabs are somewhat of a nuisance in severe rock-climbing. The belt should be sewn into the coat, only leaving about 3 inches loose at the front by which to button it.

A warm waistcoat is a great comfort, and the most important feature of it should be a thick flannel lining down the back.

Ordinary everyday waistcoats with their thin linings leave a vital part of the body comparatively unprotected from sudden chills. About half a dozen pockets would be found useful, and some of these might be lined with oilskin or other waterproof material. Bank of England notes are useful in the Alps, and they look more respectable if presented in a dry and recognisable condition.

Professional guides often climb in trousers, but amateurs favour knickerbockers, and their advantages are obvious. Personally I prefer them unlined, for they are more easily dried, and good woollen pants underneath promote warmth. An extra seat is doubtless advisable, and the knees are improved by also having a double thickness of cloth. Below the knees a band of box-cloth to button is weatherproof as well as comfortable. It is a good plan to ask one's tailor to send "cuttings" with the suit; they prove invaluable for patching purposes.

The underclothing may be left to personal choice, but the all-wool theory should be rigidly adhered to. Stockings should be as thick and strong as possible, and it is well to remember that when once they have been darned, the blister trouble is likely to appear.

The Alpine hat, made of felt, with its broad brim and high crown, is a familiar sight in these days. It possesses some merits, but it is not without disadvantages in actual practice. The broad brim shades the face from the powerful direct rays of the sun, and on hot days the crown is a convenient receptacle for a small mass of snow which keeps the head pleasantly cool. In a high wind it is a nuisance, and for any rock-climbing of the steeper kind its brim prevents the climber from seeing properly the situation of the various holds. A closely-fitting, knitted woollen helmet is far preferable for such occasions, or even an ordinary cap. Either of these can be carried separately in one's pocket. A hat-guard made of a piece of string or a shoe-lace will be found more effective than that elaborate elastic kind sometimes seen.

The gloves are a vulnerable part of the climber's armour, for the best of them quickly wear out, and several pairs should be packed. They should have one division only for all the fingers and one for the thumb. One or two pairs might well be made with gauntlets attached to pull up over the coat-

sleeve. A piece of string tied round these will promote one's comfort in stormy weather.

A muffler of Shetland wool which is long enough to tie around one's neck and over the ears and head, thus also securing one's hat, is a genuine luxury.

An ordinary cricket "sweater" might be included in the outfit; it is best made of dark-coloured Shetland wool. On a cold night in an Alpine hut it proves a pleasant companion. Some climbers prefer to substitute a sweater for the waistcoat.

Gaiters are rapidly falling into disuse. It is almost impossible to get a satisfactory and reliable pair. Their first use should be to keep the snow out of the tops of one's boots, but the chain or strap under the sole of the boot soon becomes broken or detached, and somehow or other the snow seems to work in through the seams.

Puttees are mostly used nowadays by the experts, and they have many advantages. They can be carried in one's pocket until the snow is reached, they are easily put on or off, and if necessary they can be used as mufflers, or to secure one's hat. The simplest form of puttee is best. It consists of a length of coarse strong woollen material about 3 inches wide and 2 yards long. Roughly speaking, it is wound around the leg from the ankle upwards, and secured at the knee with a piece of braid.

On mountains where there is not likely to be any snow-work, a pair of knitted anklets are preferred by many climbers. Sporting outfitters can often supply them made of elastic cloth, and these are preferable. Anklets can be recommended for keeping small pebbles and stones out of the top of the boots, and they are specially convenient for walking on some of the British mountains.

It will be readily understood that at least duplicates of all articles of wearing apparel should be carried. Even if the climber is not "wet through," it is refreshing to don a change of raiment after a "sweating" day on the mountains.

Mountaineering is the healthiest sport in the world, but there are a few minor ailments which should be provided against, and their simple remedies may be briefly suggested.

Sunburn is one of the most prevalent and annoying troubles. Its worst form is caused by reflection of the sun's rays from

newly fallen snow, but most people suffer acutely after an ordinary glacier walk. Toilet lanoline is the most efficacious preventive, and boric acid ointment will assist the healing process if the skin cracks or peels off and the face becomes extremely painful. Alpine climbers who are afflicted with delicate skin should smear their faces with lanoline before starting out in the early morning, the more so if a cold breeze is blowing.

At the beginning of a climbing holiday it is a good plan to wash one's face in water as seldom as possible, and shaving is an inadvisable luxury. On returning to the hotel after the first few excursions above the snowline, it is grateful and comforting to perform the facial ablutions in warm milk, and complete the operation by drying the tender skin with a very soft towel. Boric acid powder or ointment is an excellent recuperative for those various abrasions of the skin that are prone to annoy the too energetic climber. The powder is a splendid restorative for blistered feet.

The eyes often grow painful after long exposure to the bright light on a snowfield; a few drops of a solution of cocaine will generally relieve the irritation immediately.

Many of the higher Alpine resorts are in a most insanitary condition, and Englishmen staying in them are subject to a troublesome sore throat, or in many cases an attack of diarrhœa, which may spoil a whole holiday. For the former chlorate of potash tabloids are recommended, and for the latter chlorodyne can be used, but the best plan is at once to retreat to a healthy hotel in a lower valley. Other simple medicines will suggest themselves, but those that can be obtained in tabloid form are to be preferred; for instance, opium, quinine, and some vegetable laxative might be useful. Some bandages and lint are occasionally required, and sticking or adhesive plasters of many kinds can be much more easily procured in England than abroad.

Of course one does not pretend that this is an absolutely exhaustive list of the climber's equipment, but it will suffice for most, and as the novice learns the technique of the craft he will be able to judge for himself what he requires. For mountaineering amongst the greater and less known ranges, such as the Himalayas, a different and much more extensive

outfit would be necessary. However, by the time the tyro has become capable of undertaking such expeditions, he will know or ought to know all about the necessary equipment for camping out at great altitudes, and he will be conversant with various other details of organisation that will be touched on in succeeding chapters.

CHAPTER IV

THE ART OF ROCK-CLIMBING

“Prove all things, hold fast to that which is good.”—ST. PAUL

SOME of the earlier mountaineering authorities have spoken of rock-climbing as a natural instinct and of snow-craft as a fine art. No doubt many men take more naturally to the former, a tendency inherited most probably from our earliest progenitors, but it may well be contended that, as practised in the present day, rock-climbing is as much an art as that of ice-manship. It has been urged that any fairly athletic person would be able to climb an ordinary rock-problem, whereas a steep ice slope would prove impossible to anyone devoid of mountaineering knowledge or without previous instruction in the use of an ice-axe. Personally I do not agree with this argument. Given rock and ice of equally intrinsic technical difficulty, there is no reason why any ordinary active and intelligent man should find the one more difficult than the other.

It is only within comparatively recent times that climbers have begun to realise that the technique of rock-climbing is quite as difficult to learn as that of snow-craft. In the pioneering days routes were generally made up the great peaks by means of snow and ice slopes, and rocks if at all difficult were rigorously avoided. Systematic study of rock-climbing was then scarcely thought of. Nowadays the reverse is almost the case, for I am afraid that many climbers look on snow and ice slopes as a sort of necessary evil, to be endured as a means of gaining the rocks whereon their real pleasures lie. There is a tendency for any man to enjoy and mostly favour that branch of the sport in which he excels, and I think that at present there are, if not more, quite as many first-rate devotees to rock-climbing as to snow-craft.



Abraham

CLIMBING THE STEEP SLABS ON THE AIGUILLE DU MOINE—THE GLACIER
DU GÉANT BELOW

THE SECOND CLIMBER HAS BELAYED THE ROPE ROUND A FIRM SPIKE OF ROCK

There are plenty of men who can "scrabble" up rocks in a "do or die" fashion, but the leader who can accomplish a difficult rock-climb steadily, neatly, and, above all, safely, is seldom encountered. It is extremely rare to find a climber equally efficient on both rock and snow, in fact most parties who are successful in guideless climbing, and this, by the way, is the greatest test, include two leaders, the one negotiates the difficult rocks and the other solves the snow or ice problems. Happy is the man who can thoroughly enjoy both branches of the sport, who loves the tussle with the great brown crags, or revels in the long, stern fight with the hardest of blue ice-slopes.

At the outset of the present chapter I must confess to a predilection for rock-climbing, which after all is the popular branch of our sport in these days, when so many of the younger generations have taken to it. Young mountaineers are inclined to prefer the rock peaks, and when the shady side of forty has been reached I have noticed a gradual tendency towards snow mountains, whose standard of difficulty gradually decreases as age creeps on.

It is one of the greatest advantages of the sport that it can be followed for so many years, and though many

"Forsake the hills with their profound abysses
To seek the solace of connubial kisses,"

the majority of the enthusiasts hold on till the last, and it is no uncommon event to meet a septuagenarian even on a difficult Swiss peak.

No doubt the orthodox way of dealing with rock-climbing would be to describe thoroughly the various kinds of rock that are encountered, and it might appear to the tyro that a knowledge of geology would be an essential requisite for a mastery of the sport. Except in very exceptional cases, I do not think that the study of this science is of much practical service. It has been my good fortune to climb with famous geologists, but their knowledge has been rather a stumbling-block than otherwise. This has proved true literally, for the more disintegrated the rocks become, the more they interest the geologist; and some curious form of weathering or stratification may so divert the scientist's attention as to make him

suddenly forget his companions below, even to the extent of upsetting some loose blocks on their unappreciative and perhaps unscientific heads. A motto similar to the ancient golfing advice, "Keep your eye on the ball and forget all about the scenery," might be applicable to serious rock-climbing.

The only rock formations that seriously interest the climber in a practical way are certain limestone deposits, more especially the magnesian limestone of the Dolomites, the granitic formation, as, for instance, in some of the British mountains and the various other series of volcanic rocks. These latter formations occur in the bulk of the mountains generally visited by the climber, and the varying degrees of hardness accounts for some of the most shapely peaks in the Alps.

The Matterhorn is doubtless a striking example of this. The quartziferous gneiss which forms its summit has withstood the weathering of ages much better than the softer schistose and other rocks which compose its lower crags. It is somewhat of a revelation to be on its eastern face during a warm afternoon in June, and hear the constant cannonade of rocks that seem to be almost endlessly clattering down to the Furggen glacier. The work of destruction almost makes one wonder how long it will be before the lower part has crumbled away sufficiently to leave the huge block of harder rock at the top poised in a dangerous state of equilibrium. It will be a fine sight some day when this comes crashing down to the valley; but present generations can scarcely hope to see it, for geologists would probably reckon the time required approximately in thousands of years.

Fortunately the Matterhorn is still a comparatively safe resort for the experienced rock-climber, although not a suitable place on which to learn the rudiments of climbing. The easiest crags of our British mountains are exceptionally suitable for this purpose, but the tyro should carefully avoid the difficult courses. Some of these require as skilful treatment as any of the most difficult climbs yet made in the Alps.

The best plan for the beginner would be to learn "the feel" of the rocks on some small boulders or diminutive crags where a sudden descent would not prove dangerous. This advice

savours somewhat of the advice given to the man who contemplates drowning himself, to make the attempt in shallow water, so that he could wade out when he changed his mind. However, practice on low rocks, from which it is possible to jump down to *terra firma* when *in extremis*, will be found an excellent aid to the overcoming of that annoying nervousness and giddiness which assails many beginners.

Remarks akin to the following are constantly made to me: "Yes! I realise the fascination of climbing, but it's no good my persevering with it, because I am badly troubled with giddiness even when only a few feet above the ground."

Now this is a great mistake, for many climbers are troubled with giddiness and extreme nervousness in the days of their novitiate, though some of them are loth to confess this natural weakness. Personally I used to suffer seriously from giddiness, but the trouble gradually disappeared with practice and knowledge, until nowadays it is never felt even on the most sensational mountain ascents. But the old weakness is still there though dormant, as was proved the other day on the summit of a high church spire. The steeple-jacks were repairing the weather-cock, and whilst I was admiring the view from the spire, one of them took hold of the top of the masonry, and swung it with its human load backwards and forwards in the breeze. Though assured that the fact of its oscillation proved the stability of the spire, I fell a victim to the horrible feeling of giddiness, and had to rest for some moments before descending. However, there is nothing as trying to the nerves as this to be encountered in mountaineering; and this, as well as other artificial tests, is by no means an efficient proof of the liability of a person to giddiness on a steep rock-peak.

Some members of our two great universities have taken to "roof-climbing" by way of practice, in fact an exhaustive book has been published dealing with the routes over one of the most famous colleges. These or any of the buildings in our greater cities are not resorts to be recommended to beginners.

Suitable rocks are not to be found everywhere, and the deficiency of London in this respect once led the late O. G. Jones to take me for some practice on Cleopatra's Needle. Needless to say our expedition, though made very early in the

morning, was a failure, and the stalwart guardian of the precincts of the *Aiguille de Londres* seemed to think that Colney Hatch would be a more suitable place for our operations.

Such contingencies will not be met with at any of the well-known climbing centres, and much can be learnt on the easier rocks which adorn the lower slopes of our British mountains. Unless the rocks are sound and of the same nature as those found on the higher mountains, the tyro would be well advised to leave them alone. Much scrambling on the cliffs around our coast-line or serious acquaintance with the Derbyshire problems is not advisable. These places possess their peculiar dangers and disappointments; they are more favourable for the operations of the expert.

Dealing with the practical side of the art of rock-climbing, it may be noted that a vertical face of rock devoid of hand- or foot-hold is unclimbable by ordinary technical methods, and it is the presence or absence of suitable ledges for the hands or feet that make the ascent of rocks easy or difficult. It is remarkable to think that a smooth holdless vertical rock wall 25 feet high would make the ascent of certain rock ridges or peaks impossible; and yet how seldom, if ever, are such places met with on the mountains.

Vertical and overhanging stretches of a lower height can be overcome by the leader standing on the shoulders (or even head) of the second climber until suitable holds can be attained (see illustration, p. 460). Cases have also been known where two climbers have formed a human ladder to assist the leader up an otherwise impossible place, but such an arrangement is seldom necessary. To a properly roped party, the main point is to get the leader over any specially difficult step that bars progress. Then his companions can follow in comparative safety, and on such places a little timely assistance can be given by a pull on the rope. To conserve the leader's strength, it may also be advisable to help him at the beginning of a steep and trying place. For instance, the second climber may push him from below or hold his feet on sloping holds, but great care is requisite in rendering such aid, for the balance is easily upset by suddenly moving or holding the leader's foot.

An ice-axe has been recommended for holding up in the hand and fixing in crevices to form foot-holds or for steadying

the leader from below. This advice should very seldom be followed, and it must be remembered that one of the most terrible of Alpine disasters has resulted from using this uncertain means of assisting the leader. Except on a few occasions, the ice-axe is an exasperating nuisance whilst rock-climbing, and unless ice or snow are likely to be encountered on an expedition the axe should be left behind in the hotel. This advice applies more especially to British mountains. In the Alps each climber should carry an ice-axe a certain distance up a rock-peak until it has been definitely ascertained that the conditions then prevailing are not likely to demand its use. Even then, as a general rule, it is preferable to have an axe in the party, for a sudden change in the weather may make its absence a source of serious danger.

To refer to matters of practical technique, it may safely be said that one of the secrets of successful and skilful rock-climbing is the proper use of the feet; in fact the beginner generally proclaims himself at once by his inability to make progress where the hand-holds are scarce (see illustration, p. 53). The hand-holds should, as a rule, be only used as anchors and the upward progress made by simply stepping upwards on available ledges. The balance is thus better preserved and the superior strength of one's legs is properly utilised.

Another equally important rule is to climb slowly and to make certain that a change of position can be maintained. Progress should be steady and sure. There should be no plunging or jerking, but a sort of deliberate gliding movement, never releasing or leaving one hold until it has been ascertained that the next one is firm, and at the right place for preserving proper balance.

In watching an expert at work it will be noticed that his progress is one steady continuous movement; long practice has told him exactly where a hand- or foot-hold is needed, and whether it is large or small enough to serve his purpose. If abnormal difficulty is encountered, he never becomes excited or loses his head, for he has made mental notes of the important holds used below, and can retrace his steps with safety. He climbs equally well in any situation. Whether only a few feet from the ground, or clinging calmly to an

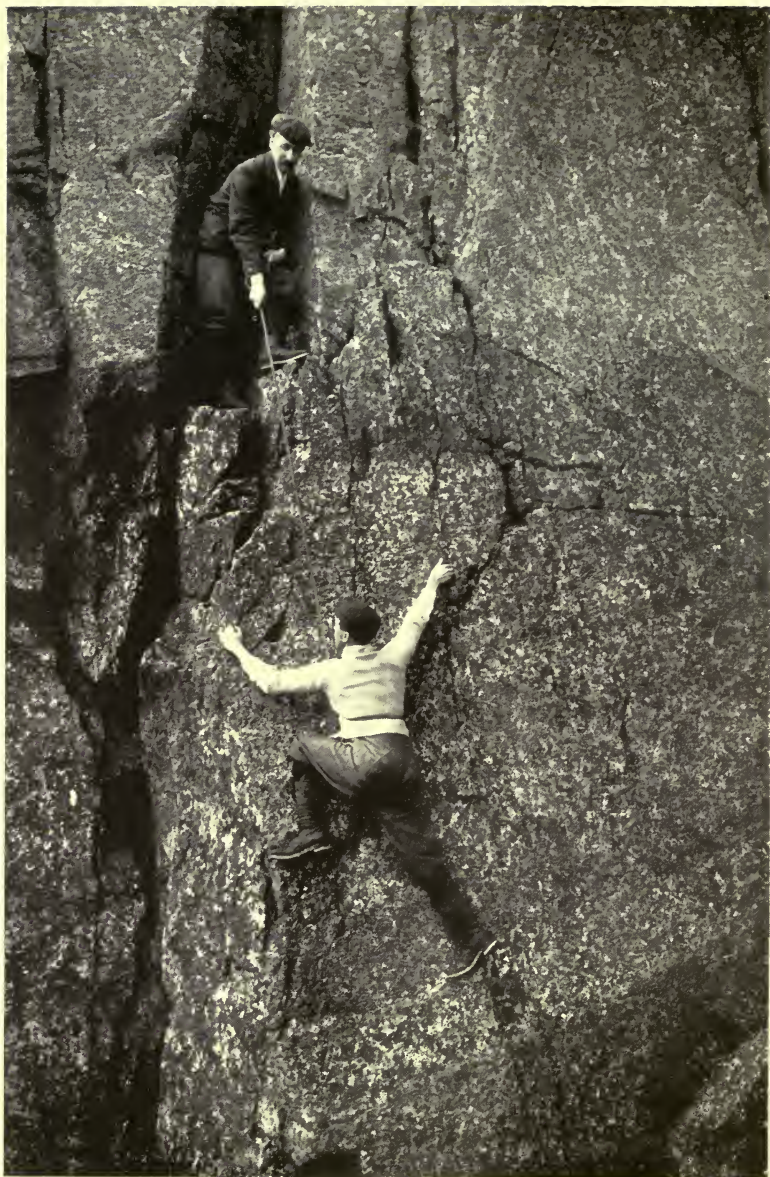
exposed precipice with nothing but the smallest of holds to prevent annihilation on the cruel crags thousands of feet below, he proceeds deliberately and fearlessly. In fact he is master of the situation, and herein lies one of the greatest pleasures of our sport—the conquest of the great peaks by an intimate knowledge of their difficulties, and an understanding of their peculiar dangers begotten of long acquaintance with their intricacies.

However, we must leave the expert and return to details that will be useful to those of less experience. In climbing a steep rock face it is well to remember that the arms will in any case first feel the strain, and grow fatigued, because they are for the most part used in a raised position, and natural circulation is thus somewhat impeded. The difficulty of holding the hands above the head for five minutes without discomfort can easily be proved at home. Thus on a long, steep, and difficult stretch of climbing, it is advisable for the leader to find suitable ledges where he can stand and rest his arms by lowering both, or one or other of them alternately. This method of conserving the leader's strength is very necessary if the trying section grows more difficult in its upper part.

Even if satisfying hand-holds are found at the summit of a pitch, the leader should not clutch wildly at them and forget the use of his feet. To finish such places neatly with the least possible exertion should be his constant endeavour. Certain famous leaders with abnormally powerful arms have been criticised for neglecting the foot-holds when surmounting the final portion of a difficult piece of rock. No doubt the criticism is just, and this for many reasons. For instance, if a loose hand-hold should suddenly detach itself whilst in use, the result would be at least undignified. Also it is often trying for the nerves of those below to see their leader perhaps 40 or more feet above them with his feet wildly beating the air, or scraping convulsively against a smooth rock face whilst his arms are doing all the work.

Most beginners, especially those with a gymnastic training, quickly learn how to use the hand-holds properly, but much practice is required before they show that skill in the use of foot-holds which marks the expert.

The ability to know exactly where the foot should be



Abraham

A STUDY IN SMALL FOOT-HOLDS
THE BEGINNING OF KERN KNOTTS CRACK—GREAT GABLE

placed to preserve the balance properly and easily only comes to most men after long experience. In extremely difficult passages it is of the utmost importance to start with the proper foot, and careful mental notes should first be made of the holds that are available for the ascent. This previous study of such a problem is to be recommended; but the tyro will soon realise how deceptive rocks look from below, and his early theories will probably be dissipated when he comes to grapple with the difficulty. However, discrimination and knowledge will come with practice. If climbing behind an expert leader with about the same length of body and limb as himself, the novice would be well advised to forego the enjoyment of the scenery and carefully watch how difficult places are tackled, so that he may imitate the mode of procedure when his turn on the rope comes.

There is a great art in the use of small foot-holds, especially those which slope slightly downwards to one's disadvantage. The important point to remember is that the sole of the boot should be so placed on the hold as to lie parallel to its slope (see illustration, p. 97). The nails will thus "feel" the hold better; and though in some cases the strain may be felt on the ankle, the climber will in time be able to stand comfortably on holds sloping at a considerable angle. Even experts, at the beginning of a climbing holiday, generally feel a want of confidence in using these sloping foot-holds. After a few days' scrambling it is astonishing to find how comfortably one can utilise these shelving ledges—in fact one almost fails to recognise that they slope at all.

The upper stretch of the difficult part of the Eagle's Nest *Arête* on Great Gable is an excellent example of such climbing (see illustration, p. 149). For about 10 feet the hand-holds are practically useless; one has to step boldly upon sloping ledges that are fortunately composed of good rough rock. A well-known climber once ascended this on a rope at the beginning of a holiday, and vowed that to lead up it would be unjustifiable. But a week later the old confidence had returned, and he was able to take some friends up it without undue risk.

On a difficult place the climber will sometimes find himself standing on a foot-hold and feeling unable to make further progress in safety. By changing feet on the available hold

the balance of the body may be so altered as to permit of upward movement, and other hand-holds may be brought within reach. Considerable knack is required in changing feet neatly on a small hold, specially if the hand-holds are diminutive. It may be necessary to lean against the rocks to make use of the friction of the clothes for partial support during the process. Yet, in most cases where the hands are fairly firm, changing feet is best done by leaning away from the rocks until the feet can be seen, and, with a slight upward spring, by sliding one foot off the hold whilst the other immediately takes its place.

Situations are seldom met with where it is advisable to cross the legs whilst facing the rocks, though in climbing transversely across a difficult section it may be necessary. The tyro is warned against using such means of progress habitually; it is usually unsafe, and leads to ungainly attitudes. I have seen climbers with their legs crossed on a difficult rock face and quite unable to move either foot backwards or forwards. Luckily they have not been leading, and the resultant collapse has been saved by use of the rope.

As a rule, foot-holds should be utilised as near together as conveniently possible; long steps upwards are apt to spoil the balance of the body unless the hands are very securely placed.

A sharp and narrow ridge of almost vertical rock that is practically destitute of hold can often be climbed by gripping the edge with the knees and hands, and resorting to methods somewhat like those which some of us used in our schoolboy days for climbing lamp-posts.

In ascending chimneys the legs generally do the bulk of the work, specially if the two walls are wide apart (see illustrations, pp. 56, 175, 206). In this case the feet will probably be on one side and the back and shoulders against the other, whilst the hands and arms or elbows will be used almost like levers to assist vertical progress. Before the ascent is begun, careful examination should be made of the walls of the chimney to determine as far as possible which of these is best supplied with foot-holds in the upper part. The completion of the climb will be facilitated if the climber starts facing this wall. Some care is required in noticing

that both feet are not raised too far at the same time, otherwise the climber may finish his course feet uppermost.

The exit from many chimneys will be blocked by overhanging boulders or chock-stones, and these often require skilful tactics. It may be possible to find hand-hold on their summits, and thus climb over them, but the larger and more difficult variety usually overhang so much that it is necessary to leave the chimney and pass out or traverse beneath the boulder.

The climber, who has ascended by the "back and foot method," will often find that effecting a lodgment on either wall of the chimney is a delicate operation, especially if hand-holds are scarce. The best plan is to place one foot on the most available ledge on the wall facing the climber, then let the body gently swing forward, whilst the other leg is swung backward until the sole of the foot can be used to push away from the other wall. This for a few seconds is a position of comparative comfort, and it allows careful search to be made for higher hand-holds, also it is possible in some cases to work a few feet up rough-walled chimneys by adopting this method. These movements can be practised to a certain extent in an ordinary household doorway, specially if rubber-soled shoes are worn, and the lock recess can be used as slight foot-hold at the start. A narrow passage can also be utilised, but the walls must not be composed of lath and plaster only. This warning is given because the writer once saw an enthusiast push his feet right through such a wall, and rudely disturb a ladies' afternoon tea-party on the far side.

Chimneys of varying widths are met with, some are far too wide to be spanned by the feet and shoulders, others are very narrow and only just permit the entrance of one's body into their recesses. The wider variety may be more conveniently classed as gullies, and the narrower, specially if they are only wide enough to accommodate the legs and arms, or part of the body, are called cracks (see illustrations, pp. 97, 206).

Almost all parts of the body are used in negotiating these narrow species of chimneys. In some places the knees and back assist the upward progress. Pieces of rock that have become detached or fallen from above usually abound in the

recesses of these narrower chimneys or cracks, and if quite firm they will prove of some assistance. Those wedged in the innermost recesses are, as a rule, not to be recommended, for they induce the beginner to climb too far inside the chimney, where the ascent is more laborious; and in some cases trouble will arise by his becoming jammed between the narrow walls. Of course it feels safer to hide one's head ostrich fashion in the chimney, but, as a rule, it is better to keep well on the outside edges, for these are generally drier and more weathered, and thus afford better holding.

If rocks or small boulders are wedged in these chimneys, and it is impossible to pass up behind them, the ascent on the outside sometimes leads to sensational situations where the arms will have to do most of the work. Hand-holds will almost always be found on these chock-stones, but care should be taken to ascertain that the stone itself is firm. It may be found to move slightly, in fact a heavy pull outwards with the hands on its upper part might lead to its dislodgment into space, carrying the climber with it. If there is a possibility of reaching the top of the chock-stone from the inner side it will generally be found an excellent means of overcoming the difficulty, for a pull from the inside may but serve to jam the loose rock more firmly.

In difficult and dangerous chimneys, as well as in cracks, firmly wedged rocks and even stones afford a means of securing the comparative safety of the leader. If good footholds are available, the leader may take the rope from his waist and thrust the end of it behind the chock-stone from below. After sufficient has been passed up through the hole the rope will probably fall down over the outside of the stone within reach, and the leader can retie himself on the end and scramble safely up the *mauvais pas*, whilst the second climber manipulates the rope through the hole. The leader can then continue upwards confidently even if the difficulty be excessive, for he knows that if a fall should occur it is likely to be arrested where the rope passes behind the stone.

It will be obvious that when the leader has reached a safe resting-place, he must ask his companions to unrope, and after pulling all the length up through the hole he can throw the end down again to be readjusted round their waists.



Abraham

AN EXAMPLE OF THE BACK AND KNEE METHOD OF CLIMBING A
NARROW CHIMNEY

THE PHOTO SHOWS A CHARACTERISTIC ATTITUDE OF A FAMOUS CLIMBER—THE LATE OWEN
GLYNNE JONES

The process might almost be called an extreme form of belaying, the usual methods of which will be dealt with later on. Following descriptions will also show that some of the *ultra* difficult courses are scarcely justifiable unless such means of securing the leader are adopted. The final success of the oft-attempted ascents of Walker's Gully on the Pillar Rock, the Slanting Gully on Lliwedd, and other now well-known climbs, might have been further delayed had it not been possible to use the rope as just described, or in a somewhat similar manner.

Another useful hint might be mentioned that is worth adopting, principally in crack-climbing. The rocks may be smooth and holdless, but by thrusting the open hand inside the thin back of the crack it will very often be found to open out sufficiently to allow the hand to be clenched. A wonderfully firm hold is thus obtained. Of course, injudicious use of the jammed hand may lead to abrasion of the skin, but careful adjustment of the strain will obviate this.

Incidentally it may be remarked that no climber should be proud of scarred or scratched hands. Minor cuts from pointed rocks are bound to occur now and again even to the best of men, but the state of many climbers' hands at once proclaims their clumsiness and lack of skill. The man who proudly flaunts his scars before sympathetic ladies at Zermatt or other popular centres, has generally very vague ideas of climbing. He is very little better than the incomprehensible youth who is often seen in such places with ice-axe, rucksack, rope, and other climbing outfit, but whose only mountaineering experience has been gained on the Gornergrat or other similar places, where railways and admiring crowds are readily accessible. However, he is but another product of the fashionable craze for mountaineering. The persistence of his exhibition at least betokens enthusiasm of a kind, and I have even known such promenaders become keen practical mountaineers.

CHAPTER V

ROCK-CLIMBING—*continued*

“Ye crags and peaks, I’m with you once again.”—SHERIDAN KNOWLES

BESIDES chimneys and cracks of varying widths there are rock faces and slabs of many different degrees of steepness to be dealt with during the ascent of most of the high mountains.

It is generally supposed that for all kinds of rock-work a lengthy climber with a long reach has the advantage over his companions of shorter stature. This may be so in climbing chimneys or cracks, but on steep rock faces or buttresses the short man usually performs best. The reason of this is that whilst the tall man can often more easily wriggle up either a broad or a narrow chimney, he is very apt to find himself stranded, caterpillar-like, on a steep rock face, because his length of body is inclined to overhang and pull him back from his holds.

The experiment can easily be tried on a high stone wall at home, or on the end of a dwelling-house. Let anyone of ordinary height take a friendly small boy of an active nature for practice on such a place, and he will have the pleasure of seeing him easily climb up vertical places that are much more difficult, or probably impossible, for the taller man, even though he may be an expert mountaineer.

My own experience is that length of reach has very little to do with effective and skilful rock-climbing, and first-class men of heights varying from 5 feet to 6 feet 6 inches are well known in modern climbing circles.

Some leaders excel in crack or chimney climbing, whilst others are most effective on steep and exposed rock faces. The latter are generally more sensational, and considerable

nerve and steadiness are required to surmount them neatly as well as safely. Such places are often dangerous for the whole party if the leader should slip, and in ascending these he should take special care not to proceed so far that exhaustion begins to assert itself. That is, he should not so far tax his powers as to gain a point above his companions where his strength would not permit a return to their level, if an impossible section should confront him.

Of course, on all occasions, *every member of a party should retain a reserve of strength and not overtax his powers.* This principle is often infringed. The leader, however, should never be guilty of such imprudence, for if he does so, the line of safety is obviously overstepped, and foolhardiness of this kind may lead, as it has done in the past, to serious calamities.

In climbing a steep rock face the work can often be made easier by following a zigzag course, and in any case the legs are best kept well apart. This lessens the strain on the arms, and the balance can be assisted during the upward movement by allowing the clothes to obtain a grip on the rocks by friction.

Almost every part of the body may be made use of on the most difficult climbs, and one of the remarkable features of mountaineering, and especially of rock-climbing, is the number of muscles it brings into play. The sport thus justifies its claim to be the finest exercise in the world, the more so if we remember that it is mostly practised in the purest air and far above the regions of virulent microbes.

It is not many years since a party of theorists in front of the comfortable fire in the smoke-room at Wastdale Head stated that it was bad form to use the knees in climbing, because it spoiled the effect of neatness. Next day some of us watched these exponents of the "neatness theory" vainly attempting to effect a lodgment on the top block of the Napes Needle. No one made any remarks, but we noticed that at last their theories had to be cast to the winds. The leader was glad to utilise both knees at once, and his unshaven chin was even brought into use to enable him to stick to the upper rock. Before their holiday amongst the Cumberland climbs was finished they had learned that knees, elbows,

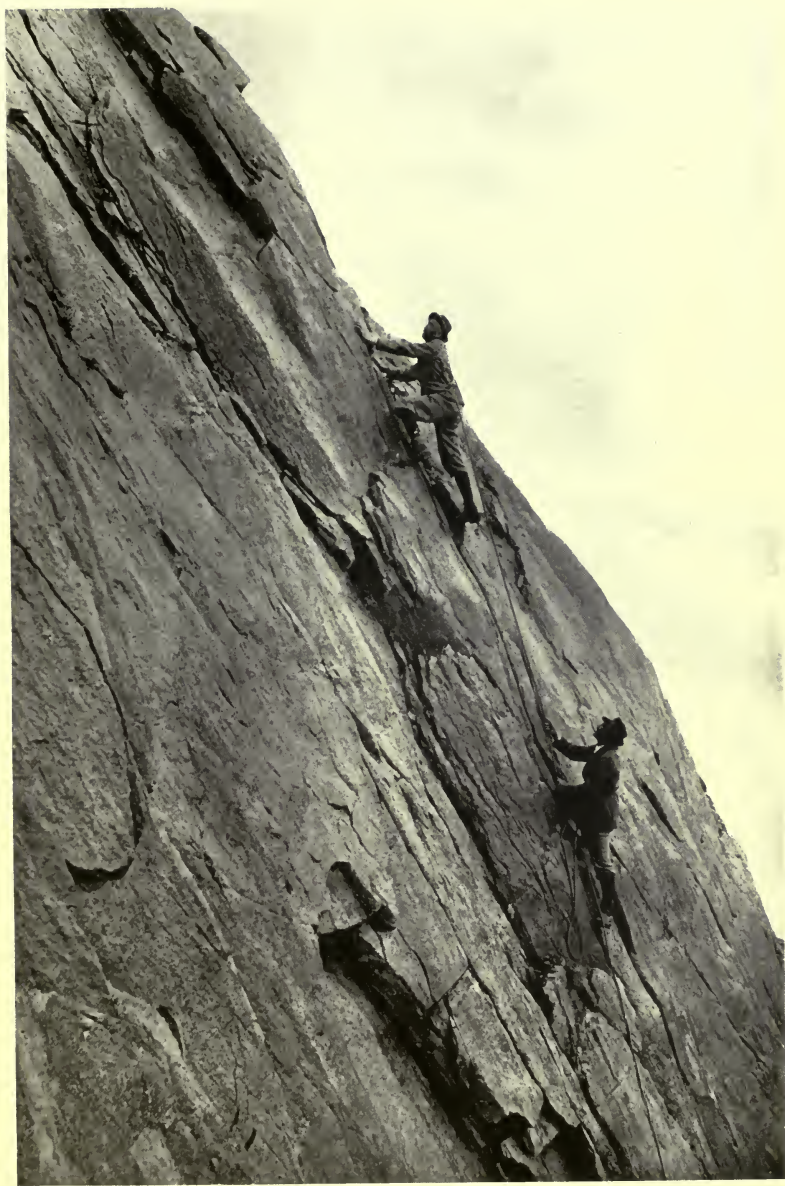
shoulders, neck, head, and many other parts of the body must at some time or other be called into play on difficult climbs.

The healthy stiffness of the muscles induced by the first cricket practice of the season is mild compared with that often experienced during the first few days of a strenuous rock-climbing holiday. It is almost a lesson in anatomy to realise the number of vulnerable muscles one possesses. An off-day simply delays and probably aggravates the cure; the best plan is to persist in the exercise, and on the second or third day the trouble usually disappears.

In the Alps there is much slab-climbing. These slabs slope back at angles varying from about 45° downwards, and, as a rule, they are so easy and so long that they grow monotonous (see illustration, p. 60). Some skill can be shown in passing up them quickly, safely, and neatly, without disturbing the loose stones that rest on the ledges. As a rule, it is best to keep in as upright a position as possible, and the hands should only be used to steady the body whilst the feet step steadily up from ledge to ledge.

On many mountains it may become necessary to climb or move transversely in order to obviate some impossible or unsuitable section that bars direct progress. This movement is called traversing, and it may be in a horizontal direction, or partly upwards or downwards. Sometimes there is only a narrow ledge for the feet, and the hands are used as friction holds on the rocks above. At other times there may be no foot-hold but a well-defined ledge or ridge which gives excellent holds for the hands only; this latter is called a hand-traverse. Other parts of the body are used for traversing narrow, curiously-shaped grooves which may have overhanging rocks above them; the famous Stomach Traverse on the Pillar Rock is a good example of one of these.

In descending rocks it may be noted that the best climber of the party should come last, and usually the one who has acted as leader for the ascent will undertake this rôle. The first climber of a descending party also has an onerous position to fill, for he has to pick out the best and proper route. If the party is to return by the way they came he should during the ascent have made mental notes of various land-marks or rock-marks. These latter will probably take the form of scratches



Abraham

CLIMBING THE SLABS ON THE CHARMOZ

left by the boot-nails in ascending, but if wet weather should be experienced these traces are bad to follow, and small heaps of stones or conspicuous pieces of rock might well be left at places in the ascent where complications are likely to arise on the return. I have even heard of the continental climbers marking the route by leaving slips of coloured paper at various points; these "paper-chasing" methods are most common in the Dolomites, where the *Kletterschuhe* leave no nail-marks.

Should misty or stormy weather intervene whilst the party is engaged on an unknown route, this precaution may be the means of saving the party from being benighted, a none too uncommon experience in these days, but not one to which any credit attaches.

Easy slabby rocks set at a moderately sloping angle are best descended with the face outwards and in a more or less sitting position. Some authorities may say that this method is ungainly, and so it is to a greater or less extent according to the knack of the climber. But it is wonderfully effective and by far the quickest as well as the safest way of making an easy descent. If the rocks grow steeper than say an angle of 45° and the holds become scarce, it will be advisable to descend facing the rocks; a much slower and more tiring process.

Practically the same holds as those required for the ascent will be utilised whilst descending, and a good memory for what might almost be called rock-geography is a useful gift.

The last man can receive considerable assistance from his companions on the trying sections, and in special cases the rope may be hooked around an outstanding rock to facilitate the descent by using the rope as hand-hold.

Some experience is necessary in gauging the steepness of rocks whilst looking down them. The effect of both height and steepness is curiously exaggerated, and the beginner will find that, when suspended by his hands, he is able to reach foot-holds that from above appeared to be some distance below his calculated length of limb.

There is a popular notion that the descent of a mountain is more difficult than the ascent; but this, with a few exceptions, is a pronounced error. It may prove extremely trying

and laborious to raise oneself up a steep rock face which possesses only the smallest of hand-holds, but the force of gravitation assists in the descent, and it is an easy matter to lower the body on the same small holds. By hugging the rocks closely the friction of the clothes will exert a useful steadying effect; in fact in all kinds of climbing the novice will quickly realise the importance of this kind of friction hold, and the practical adoption of this advice will gladden the heart of his tailor.

It should be remembered that on most of the British climbs it is generally possible to walk down an easy side of the mountain after the day's work is over. Thus it is that the homeland climber is apt to neglect practice in descending difficult places, and I would strongly urge the necessity of such experience. Many men go to the Alps and are able to ascend rocks in first-class style, but their clumsiness in the descent has puzzled many of the guides considerably, and they are inclined to think that their companion has become *fatigué*.

In dealing with loose rocks in either the ascent or descent it is advisable to distribute one's weight on as many points as possible. A sudden pressure on either one hand or foot may precipitate matters in more ways than one. Somewhat of the attitude which the household cat assumes when crossing the roadway on a wet day is characteristic of such places.

Falling stones upset by the members of a roped party are one of the real dangers of mountaineering. In a loose gully or couloir the party should climb in close order, and by so doing any dislodged rocks can be arrested almost before they have begun to gain any serious momentum.

On open slabs of a loose nature the party might ascend in a series of zigzags, and thus each one can to some extent keep out of the line of fire of the man above. On new climbs or unfrequented routes loose holds are sometimes much in evidence. Even the expert when dealing with such places will be well advised to test carefully those hand- and foot-holds that are of importance in ensuring his safety.

It has been written that the climber should assume that all holds are loose, and each of them should be tested separately before using. I am afraid many of the modern rock-climbs would never be completed if this advice were followed, but

the principle is sound enough to some degree, and the climber soon learns instinctively to detect an unsafe or doubtful hold. In all my experience I have never seen or heard of a good leader making use of a hold that has broken away and caused a serious fall. As a matter of fact, the dangers of loose holds for the leader are small compared with the danger his companions below often experience when he is negotiating rotten rocks.

Where the crags are sound, a dislodged stone is usually the result of clumsiness, but sometimes one may encounter a whole section of a mountain that appears just ready to crumble away and fall on those below.

The following episode in our first ascent of Iron Crag Gully in Cumberland will show the peculiarities of such a place.

The lower part of the climb was up hard, firm rock, and the final section was the open bed of the gully, up the centre of which ran a thin, steep crack. The interior of this was rather loose at its foot, but higher up it grew dangerously rotten, and great flakes were liable to come away in one's hand. A storm of wind and rain was raging at the time, and this aggravated the state of affairs. Our leader was the famous expert the late Owen Glynne Jones, and he found the crack so risky in its upper part that it became advisable to leave it and take to the vertical rock wall on the right. To do this a shoulder would have to be given from a shelving ledge about a foot square, to enable the leader to reach the firmer and less steep rock up above. This was the most obvious means of egress, but the ledge seemed very unstable, and it vibrated slightly on being tested. However, the leader thought it might hold if used delicately, so I climbed most carefully up on it, whilst those below tendered much advice and looked anxious meanwhile. By jamming an elbow in the crack I was able to put but little pressure on the ledge whilst the leader climbed on my shoulders. From thence he was able to reach some hand-holds, draw himself up, and pass out of my sight. In a few minutes he called to me to follow. At the moment when my weight left the ledge I heard a dull, ominous crack, and the whole of it seemed to peel off the side of the narrow chimney and go crashing down on those below.

My brother, who was next on the rope, succeeded in squeezing into the chimney, and at the same time he gave a warning shout to the last man. The falling mass carried away part of my brother's boot, but the escape of the man below seemed yet more marvellous, for it appeared as though nothing could save him. However, on looking down I saw the great rock strike a projecting piece of the chimney only a few inches above his head and spread out like a fan into a thousand splinters, which shot far out into the air, falling near the foot of the pitch. Thus we escaped with only a few bruises, but it is not pleasant to think what might have happened had the ledge collapsed when the leader was on my shoulder. Probably our pressure completed its fracture from the main mass of rotten rock, and when my weight was withdrawn it toppled over of its own accord.

This will serve to show how treacherously dangerous certain kinds of rock may become, and I have no hesitation in saying that such places are best avoided altogether.

Continual patience and care are required from every member of a party when ascending a climb that abounds in loose stones. The advice previously given to move slowly and deliberately should be doubly accentuated for such conditions, and if any member of a party should be damaged by a stone which has been upset by his companions the offender should look on the matter seriously, for it is distinctly to his discredit.

It is scarcely possible to give much useful practical advice for the treatment of iced or wet rocks, except to say that either condition may aggravate the difficulties of a climb tremendously, and may even make its conquest an impossibility. Succeeding chapters will contain suggestions for their more or less safe negotiation.

The art of the correct use of the rope for rock-climbing is one of the most important branches of the sport of mountaineering. Its proper manipulation on a given climb may mean perfect safety to a thoughtful and careful party, whilst its neglect or improper use may prove extremely dangerous.

I well remember the terrible accident to four of my personal friends on the face of Scawfell Pinnacle in 1903, and how the remark was at the time constantly expressed

by the non-climbing public, that rope-climbing is unreasonably dangerous, because if one climber slips, unless the rope breaks, he must pull all the others down. This catastrophe was doubtless caused by the leader slipping and pulling his companions one by one from the small insecure ledges that afford the only resting-places on that particular route.

For a height of at least 200 feet the face of the Pinnacle is one long, steep, smooth slab without any suitable projection around which the rope could be wound to secure the comparative safety of the party. Such places are seldom met with, and if they are I am quite sure that the party to attempt them should not consist of more than two experts; in which case it is doubtful whether a rope is necessary.

It is an open question whether the ascent of an extremely difficult rock face over 200 feet high, that possesses no good ledge on which the leader can stand to steady the rope during the passage of the second climber, is a justifiable climb. The doubt is still further pronounced if there are no projecting rocks to give anchorage for the rope. Such conditions are exceptional, and do not prove that the use of the rope is dangerous; rather it is the impossibility of making use of the rope that is the source of danger.

As a rule, the rope is indispensable to rock-climbing, and personally I should always use it on both easy and difficult courses. An eighty-foot length would prove most useful for a party of three on difficult rocks or even for general rock-climbing. If the pitches are on a small scale the length of rope between each man may be found awkward to manage, and in such cases it may be preferable to shorten the length of the rope used. This is best done by the last climber tying on by means of a middle-man noose at a suitable distance from the end of the rope. The surplus can be made into a neat coil and carried around his shoulder. The rest of the party can then take their positions on the rope at the usual equidistant places, though personally I always prefer to allow the leader a length of a few extra feet. This will often afford him more freedom for the choice of a suitable resting-place from which to hold the rope during the ascent of the second climber. It is this second man's duty to carefully pay out the rope whilst the leader is moving upwards, and to take notice that

it does not become caught or jammed amongst the rocks, otherwise the resulting jerk might prove dangerous to the leader. If any knobs of rock are available, and the efficient second will generally discover something of the kind, the rope should be paid out behind or around this. This process is called belaying, and the word belaying-pin is often used to signify the rock used for the purpose (see illustration opposite). These belays are the greatest safeguards of a party, and the expert members will always be on the lookout for belaying-pins on pitches where difficult sections are encountered either in ascending or descending, but especially when effecting difficult traverses. It will easily be understood how these latter passages can be made comparatively safe if furnished with good belaying-pins. The rope can also sometimes be looped over a hitch above the level of the climbers.

It may be noted, incidentally, that in traversing rocks the last man of a party has as difficult a position to fill as the leader, and on courses that abound in such passages, it is not advisable to follow the usual custom of placing the least skilful member as "tail-piece"; he would be safer as middle-man. A good, reliable, and experienced, second man is a useful unit, and, as a rule, he has important duties to fulfil. For instance, he must assist the leader judiciously when required, and in moving over easy and even more difficult rocks he has the rope in front to look after as well as that which connects him with the following climber.

When the party is moving quickly and more or less at the same time, each member should carry a small loop of the rope in front of him. This will usually prevent that succession of annoying pulls that are inclined to occur if one climber moves more quickly than another, and it will in some measure hinder the rope from dragging over the crags and becoming entangled amongst rocks or around the climber's legs. On unstable rocks the rope is a temper-trying source of trouble and even danger; serious accidents may happen if it is so carelessly handled as to dislodge loose fragments. If the rope is allowed to drag amongst the boulders that often fill the bed of a gully or couloir, there is great risk of its becoming damaged by a disturbed block falling upon it, and rendering its future holding power practically *nil*.



Abraham

BELAYING THE ROPE ON STEEP ROCKS

THIS APPLIES ONLY TO THE LEADER, WHO HAS SECURED A SAFE HITCH ROUND AN OUTSTANDING ROCK. THE PHOTOGRAPH WAS TAKEN ON LLIWEDD, N. WALES



Abraham

OVER THE NOSE—ON THE NORTH CLIMB OF THE PILLAR ROCK

I have only had personal experience of this on two occasions, but the last of these is worth recording as a warning to beginners. I was taking a friend up a loose gully on the Clogwyn d'ur Arddu of Snowdon in the spring of 1905, and after a long and tiring day we were somewhat careless about the handling of the rope amongst the insecure rocks that adorned the bed of the gully. A difficult overhanging pitch refused to yield to ordinary tactics, so I mounted on my second's shoulder, and was thus able to reach some ledges for the hands and scramble up about 30 feet higher until a good ledge was gained from which I could help my companion with the rope. As he could not stand on his own shoulder, this assistance was very necessary, so, having scrambled up a few feet to the side of the steep portion, he informed me that he was about to swing out on the rope. Almost instantly there was a clatter and a shout from below, whilst the free end of the rope came easily towards me when it was pulled. In astonishment I called to my companion, and he told me that the rope had parted like "burnt string" a few feet above his head, and that he was sitting on the boulders in the bed of the gully rubbing his bruises. Luckily his descent was a trivial one, but he came very near to rolling over the next pitch, which was 50 feet high. An inspection of the rope showed that a rock must have fallen heavily on it whilst it lay across another boulder; and though to outward appearance it was quite sound, there would have been no difficulty in tearing it apart by pulling with the hands.

Some climbers take the precaution of trying their weight suspended on the rope before following the leader up a place where they are likely to require its physical support. This practical way of testing a rope now and again whilst rock-climbing is to be recommended.

The leading climber, as far as possible, should always hold the rope from a point directly above his companion who is following, and on many courses it will be necessary for him to make traverses along suitable ledges to secure such a position. If unable to accomplish this, great care is required not to pull the rope from one side or the other, for this would be likely to pull the climber from his holds, which on a steep place might lead to his performing pendulum-like gymnastics in mid-air.

Considerable tact and judgment are necessary whilst steadying up one's companion, and, as a rule, the rope should be held just tight enough to "feel him."

Swiss guides almost invariably pull the rope far too strongly, and the amateur who is also a beginner is likely to bear the marks of it for some days after each expedition. Nothing seems to please the average guide better than to haul and pull until his Herr, on some *mauvais pas* or other, is at last torn from his holds and dangled for a few exciting seconds in space. The novice thus gains an altogether exaggerated opinion of the difficulty of the climb, but had it not been for the injudicious use of the rope he would most probably have overcome the difficulty with ease and safety. Briefly, it is useless to attempt to learn how to use the rope on rocks from the average Alpine guide; the tyro will fare much better with a party of amateurs on British mountains.

Enough has already been said to show the importance of a first-class leader in rock-climbing, and the party should have every confidence in his powers and opinions. Many years' practice in an inferior position is certainly advisable before attempting to lead up difficult and dangerous routes, and it is necessary to remember always that *a slip on the part of the leader is the greatest danger of rock-climbing or mountaineering in general. The decision of the leader should be final; and another climber should never essay the attack where he has failed.* The practice of tossing for leadership is likewise condemned, and on really difficult courses there is no justification for employing such haphazard means of choosing the leader. This recalls to memory the famous Scotch climb which defied the effort of several strong parties for some years. When the history of the place came to be faithfully written, it was seen that the turn of the coin had on each occasion sent comparative novices to the head of the party. One of the first lessons the tyro leader must learn is to know when he is overstepping his powers. Great care is requisite not to persevere too far with a difficult climb; and when there is the slightest feeling that undue risks are being run, he must bear in mind that in no sport is discretion the better part of valour more than in climbing. It should always be remembered that the moral victory obtained by turning back is often a more

creditable and difficult course than to persevere in the face of danger.

We may briefly sum up the principal secrets of successful rock-climbing as follows: Great care, slow and deliberate movements, proper use of the feet, constant attention to one's companions, and skilful manipulation of the rope.

CHAPTER VI

SNOW-CRAFT

“He that stands upon a slippery place
Makes nice of no vile hold to stay him up.”—SHAKESPEARE

THOUGH the exigencies of technical classification demand that the writer on mountaineering should divide his remarks into the two main branches of rock-climbing and snow-craft, the faithful follower of the sport will prefer to think of them collectively. True it is, however, that in these modern times we have many men who are rock-climbers pure and simple, and who have no ambition to explore the wonders of the snow and ice world. As a rule, they are content with the British mountains, in fact they worthily uphold the sentiment of Kingsley's couplet:

“While we see God's signet fresh on English ground
Why go gallivanting with the nations round?”

Their pleasures, and truly they are by no means inglorious, lie in conquering the great crags and cliffs of our homeland, and that principally under summer conditions. A select minority are devotees to winter climbing, but even they would agree with their critics that it is altogether different from the work encountered on a great Alpine peak, in fact some authorities would cavil at the use of the term mountaineering in connection with British peaks.

Be that as it may, the finest mountaineers of the day are those who have learnt the craft in their native land and for the most part begun their careers as rock-climbers, or, as some of the more conservative of the old school prefer to call them, rock-gymnasts.

Though the condition of the snow on British mountains

is vastly different from that which obtains in the Alps, much can be learnt about its varying holding powers on steep slopes, how to walk on and up it, the first principles of step-cutting, the climbing of snow-covered rocks, how to glissade, and many other minor items of knowledge that would help men to travel safely over even the greatest mountain ranges of the world. The winter months are above all the best time of the year to learn how to steer a course by map and compass, since then many of the summer land-marks and cairns are hidden under the pathless mantle of white. This is also the season of buffeting winds and driving mists, when even the expert cragsman may lose his way on a storm-swept fell-side.

We have been told that the best way to learn mountaineering is to go to the Alps and spend several seasons "tied to the tail" of an expert guide. Unfortunately, the best of guides are almost invariably bad teachers; and, besides this they are not paid to impart information on the technique of their craft, but to take their patron up and down a certain peak. If the novice with a natural aptitude will begin climbing on British crags, learn to find his way about the mountains in all kinds of weather, and practise the various branches of snow-craft enumerated above, he will be vastly superior to the average man who has spent many seasons behind a Swiss guide. In any case he will have acquired a certain amount of self-reliance as well as learnt to treat the mountains with respect; and the lessons of the first season in the Alps will come, one might almost say, like good seed on fruitful soil. He will understand "the why and the wherefore" of the guide's movements; and even the regions of perpetual snow with all their abstruse difficulties will soon yield up their secrets to his advanced, intelligent study.

Those mountaineers who intend to explore the unknown mountains of distant lands should remember that an intimate knowledge of snow-craft is much more important than great skill in rock-climbing. For instance, the rock specialist pure and simple would be "all at sea," or rather "all at snow," on Mount Everest, and he would have no chance of success.

For the sake of clearness in this chapter on snow-craft

it may be advisable to take an imaginary snow mountain in the Alps and point out its technical peculiarities.

The higher parts of these peaks are generally above the snowline, and the vast accumulation of snow year after year is in a state of continuous motion towards the valley. This movement must be kept in mind, for it is the cause of many of the difficulties met with in the Alps. The weight of this huge mass of snow, which, as a rule, rests on a rock basis, sets up a tremendous pressure in various directions during its many movements, and the snow soon becomes of an icy nature, in many places appearing in the form of hard blue ice.

The city man knows that if he tries to walk down a slanting ice-covered footpath, he will most probably sit down suddenly. Slopes of hard snow and ice in the Alps possess the same properties, and a knowledge of step-cutting is required to make their ascent in safety.

The first ice to meet a party in their upward journey will, under ordinary circumstances, be the snout or end of the glacier where it has pushed its way down into the warmer regions to melt gradually and flow seawards. It will probably be covered with moraine matter at this point, and, withal, present a disappointing and dirty appearance; but the ice is underneath, and one must step warily.

Incidentally it may be remarked that this extreme melting point of the glaciers varies in each case; it is not at the snowline, but, as a rule, much lower. The snowline in the Alps is said to be about 8,000 feet above sea-level, and, roughly speaking, it is an imaginary line drawn between the region where the snow rests all the year round and that in which the new snow melts annually. Its position is not a matter of much importance to the climber, for its altitude is very uncertain on different mountains, and whilst the snowline on the north side of a peak may be about 6,000 feet above the sea, on the south side very little snow may be encountered below the 9,000 or 10,000 feet level in a fine summer season.

To revert to our glacier snout, it should be understood that the loose boulders and stones that are perched upon the ice are in a dangerous state of equilibrium in warm

weather; this is due to the rapid melting action, and the wise tourist will keep out of their range.

There is often considerable difficulty in getting on to the lower part of a glacier because of its steepness and shattered construction. In the summer season there may be a considerable space between the smooth rocky walls that form the lower banks of the glacier and the ice itself; in this case it is advisable to work up one bank or the other until the glacier surface can be gained a few hundred feet higher than the snout. Some glaciers are not readily accessible below a point a few thousands of feet above the snout. Even there a quantity of loose stones or moraine matter may be encountered, but if the slope is not too severe they will be partially embedded in the ice, and in the early morning probably frozen firm. These sometimes enable the climber to walk easily up and on to the more level surface of the glacier without step-cutting, which may be an unpleasant operation on stone-covered ice, if one values the lasting power of one's axe to any extent.

Once fairly arrived on the glacier, the walking is usually delightful. The ice has a crisp, rough surface, somewhat like common loaf-sugar, if a homely simile may be pardoned, and it is in some cases possible to travel upward for miles into the heart of the snow world before serious crevasses are encountered. This part is called the dry glacier, not because of the scarcity of water, but to distinguish it from the higher portions that are covered with snow (see illustration, p. 283). There are a few interesting features connected with the dry glacier that are worth notice. One finds the air, as a rule, cool and exhilarating, but the afternoons may be terribly hot, and long exposure to the sun may induce an almost unquenchable thirst. The beautiful clear-looking streams of crystal water that are encountered at times flowing valley-wards, in delicately curved channels worn in their icy surroundings, are a snare and a delusion to the thirsty climber. These glacier streams hold in the finest state of suspension tiny fragments of rock and mud that are very liable to irritate the digestive organs of the strongest man. I have known friends yield to the temptation just to take a sip during the return from a climb, and next day violent stomachic troubles almost akin to

poisoning have set in. This generally means the end of a climbing holiday and good-bye to the Alps for that season. The dangers of glacier water will be understood if the climber takes a few drops into his hand and exposes it to warm sunlight until the moisture has evaporated. Then he will see and perhaps be able to feel the tiny sharp spiculæ that are very probably present through the incessant grinding movements that go on during the birth and progress of the glacier. Many guides and some amateurs can drink glacier water with impunity, but for ordinary mortals it is not to be recommended.

An entertaining feature of these glacier streams is the way they plunge down into deep holes called *moulins*, and these icy channels form vertical waterways down into the bowels of the glacier. It is a weird amusement to roll big rocks down these places, but the edges are slippery, and discretion is necessary if the recreation is to be indulged in safely.

Glacier tables, which is the name given to the large rocks that stand perched on a pinnacle of ice, are objects of interests in these regions. The rocks are brought down from higher levels, and the melting of the ice around them by the sun's action gradually leaves some of them perched in an insecure position several feet above the level of the glacier.

Unless the glacier is of a comparatively straight and level nature, crevasses will soon be visible. It will be readily understood that they are most prone to appear where the glacier takes a sudden, steep drop; here the moving ice is twisted and compressed into all kinds of shapes, whilst crevasses abound in every direction. These places are called ice-falls, and the icy pinnacles and towers that generally ornament them are known as *séracs*. Some ice-falls, generally the steeper kind, are dangerous on account of these icy masses tottering and falling down the slope. That of the Glacier du Géant on the higher part of the famous Mer de Glace at Chamonix, if approached in the centre, is a typical example of an unsafe ice-fall. The ascent of that on the Gorner Glacier at Zermatt is a comparatively safe excursion for a skilfully led party. A passage up its



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CUTTING STEPS IN THE ICE-FALL OF THE GLACIER DU GÉANT

intricate centre involves considerable step-cutting, but it affords a marvellous peep into the beauties of the snow and ice world. On many mountains these ice-falls can be avoided by making a way up one side or the other, as is usually the case on the Glacier du Géant, but occasionally they have to be surmounted more or less directly to reach a certain situation on the mountain. Local guides, as a rule, know the most vulnerable point of attack on such places, though the lay of the ice may vary somewhat from year to year. This is one of the cases where a party led by a professional has the advantage over amateurs. Still, an expert and experienced amateur party can generally find a way through the most complicated ice-fall (see illustration, p. 379). Little advice can be given, as conditions vary so tremendously, but, as a rule, it is best to begin at the side where most chance of a continuous route appears. If the ice-fall is situated in the sharp curve of the glacier, it will generally be found most amenable on the inside of the curve. The action of the sun's rays also tends to break up the surface of the ice, and the shaded side of an ice-fall will be less shattered and offer simpler routes upward. Where a tributary glacier joins the main mass, it should be noticed that its pressure at the point of junction sets up a process of regelation, and the crevasses may be so closed that there is quite an easy walk through the ice-fall.

A series of wide zigzags is often the best method of progress, and in the case of an amateur party it may be necessary for them to retrace their steps a few times; for an easy slope of ice, met with unexpectedly, may tempt them from their preconceived plan, and progress may be suddenly arrested by an impossible crevasse.

In a complicated ice-fall the climbers may have to cut steps down almost into the depths of the glacier and up again in order to pass such places, or they may have to traverse the slippery slopes of a crevasse with unnerving views down into the icy gulf (see illustration, p. 86). At other times it may be necessary to walk along narrow ridges, and even creep along, or cling to, a sharp narrow arête of ice that affords no comfort or feeling of safety excepting in continuous movement.

In many ice-falls, especially those at higher levels, a large accumulation of hard snow will be in evidence. This may be the débris of an avalanche or remains of the previous winter's fall, but in either case it is usually safe and is often of assistance in passing complicated sections. Wide crevasses may become completely bridged by it, whilst the smaller ones will sometimes be quite filled up, and thus an almost smooth slope of snow affords comparatively easy walking.

An expert leader will usually attack an ice-fall where these snow accumulations appear to afford the best progress through the icy maze; by so doing much step-cutting will be avoided and valuable time saved.

Before moving upwards from the dry glacier in our imaginary ascent, it may be pointed out that some difference of opinion exists as to the necessity for using a rope on this part of a mountain. There can be no doubt that if the party includes a single novice or doubtful member, the rope should always be used on dry glaciers if any serious expedition is undertaken. Of course the "Grand Passage of the Mer de Glace" from Montanvert to above the Mauvais Pas or other similar personally conducted tours would scarcely come within this category. However, even for the former, under certain conditions, one is almost inclined to suggest the use of the rope. Experienced men will scarcely need one on ordinary dry glaciers until complicated crevasses or an ice-fall are encountered, but wherever a slip would prove dangerous it should be called into service at once.

The dangers of the lower glacier are obvious, but higher up, when comparatively new snow begins to mask the crevasses, some experience is required to find the safest course. The number of crevasses will vary with the steepness and position of the glacier, but the golden rule is always to cross them as nearly at a right angle to their lay as possible (see illustration, p. 297).

A rope should be used always on snow-covered glaciers, and the party should include not less than three members. Some authorities say the more the better, but any number beyond six for one rope would, as a rule, constitute an unwieldy and slow party. It is a generally accepted fact that one man cannot pull another out of a crevasse unaided,

so that a party of two should never attempt a serious snow expedition.

The late A. F. Mummery formulated a theory that such parties should carry a spare rope by means of which one man could haul the other out of crevasses single-handed. I have never heard of its successful use in urgent cases, and, except for the most advanced experts, its adoption would scarcely be possible. As such men are about as likely to fall into crevasses as they are to take notice of my advice, further explanation is unnecessary.

To a properly roped and equipped party the passage of these upper snowfields is a safe and simple undertaking.

If the day be at all bright or sunny, goggles will have been required lower down on the dry glacier, but on the upper snowfields or *névé* their use is imperative, excepting perhaps under very sombre conditions. Now also is the time to don gaiters or puttees, if, as is nowadays the usual and sensible custom, they have been carried thus far in the pockets or rucksack.

Just above the crest of the ice-fall the largest and deepest crevasses are often met with. These are generally of the transverse variety, and may stretch some hundreds of yards across the glacier. Longitudinal crevasses may be roughly defined as those that split the glacier parallel to its course, but these are, as a rule, comparatively scarce, and do not seriously affect the progress of a party on the *névé*. Unless the transverse crevasses are securely bridged with snow, a considerable detour may have to be made, but time may be saved, in those cases where a single big one bars the way, by cutting steps down one side and up the other if convenient slopes are available. Huge snow bridges often collapse and more or less choke up the interior of these big crevasses, and a way across may probably be found thereabouts (see illustration, p. 379). Even some of the biggest crevasses are spanned by a natural bridge of snow, and early in the season these bridges are generally firm and strong enough to afford a safe passage. In August and September the daily action of the sun's rays and the quick changes that are in progress on the surface of the glacier tend to make them unstable and rotten. At all times these bridges should be treated with

respect specially after midday, for one that is safe in the early morning may become a deceptive trap when the warm afternoon sun has altered its consistency. As a rule, a snow bridge on the level needs more care than one set at a steeper angle; there is a greater tendency for the former to collapse under the weight of a climber. The party should be so roped that only one of its members is on a doubtful bridge at the same time.

There is an art in distributing one's weight in such places, and, as a rule, the best method of progress is a sort of crawling movement with the arms well forward and the legs almost dragging behind. A couple of ice-axes held lengthwise in the hands of the leader will help to spread the weight over a greater space. Once he is safely across a fragile bridge, the middle men of a party have a more certain passage, because the rope is held from both sides; but every precaution should be taken not to disturb the firmness of the structure, for otherwise the last man may have an anxious crossing, also the bridge may be needed in the descent. It should be noted that a really expert party will leave a snow bridge firmer than they found it, for the pressure of their weight tends to harden it.

Once they are out on the more level, upper snow-field, the party will make quick progress. Each man should step in the footprints of the one ahead of him, and thus the labour of walking in snow is considerably reduced; whilst, if the leader has chosen the best route, there is less likelihood of those behind falling into crevasses. Of course the expert should be leading, and each of his companions ought to carry a coil of the rope in the one hand, whilst the ice-axe may be used somewhat in the manner of a walking-stick in the other. The main idea of holding the rope as stated is that, should one of the climbers stumble or momentarily make quicker progress than the others, the slackening of a coil will hinder the others from suffering a jerk from the rope (see illustration opposite).

Where hidden crevasses are thought to exist, the rope must be held firmly, and each traveller should be able to watch himself and his companions at the same time. Under certain conditions of the snow one's foot may suddenly break



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"A MISTY MORNING ON THE HEIGHTS."

A GUIDELESS PARTY ON THE WAY TO THE AIGUILLE DE LA ZA—THE COL D'UÉRENS AND THE MATTERHORN ARE SEEN IN THE DISTANCE

through the surface, but a quick forward bend of the knee and a swing of the body will generally prevent further collapse. If both feet go through, the body should be thrown quickly but softly forwards and the ice-axe spread out over the snow to distribute the weight. These occurrences are common enough, but a careful climber will seldom disappear bodily into a hidden crevasse, though if he should do so the rope will prevent any serious consequences. As a rule, sufficient warning is given and a skilful pull on the rope at the right moment will save the situation. Should the culprit be allowed to fall several feet into the crevasse, it will be best for two or three of the party to pull on the one end of the rope. If this cannot be done, considerable strength and judgment are sometimes required to get a man out of such a quandary, and the quickest way is to throw down the end of a rope with a loop tied in it. The man in the crevasse can stand in this whilst the other rope round his waist is used to hoist him upwards. It will be noticed that the friction of the rope on the lip of the snow-covered crevasse makes it a simple matter for a man to support the weight of the one below, but if any single-handed attempt is made to lift him, this same friction acts as a powerful deterrent. An ice-axe laid on the snow so that the rope can run over the shaft will assist in lightening the labour.

In any case it cannot be a pleasant experience to be engulfed in a crevasse. Though enthusiasts have waxed eloquent about the marvellous sights to be seen therein, I cannot help thinking that it is scarcely a pleasant place for an ordinary mortal endued with normal nerves. Nor is it possible to believe that the cutting embrace of an Alpine club rope, around even the toughest of waists, is conducive to sufficient comfort of mind and body to allow a thorough appreciation of the beauties of the "sub-Alpine" snow and ice world.

The avoidance of an acquaintance with the interior of a crevasse is a comparatively simple matter, and the watchful climber should never fall into one, for its presence is always indicated. The snow above a hidden crevasse, if it is at all likely to give way, possesses a concave appearance, and has a decidedly darker shade of colour than its surroundings.

Probing with the pointed shaft of the ice-axe is a useful means of localising a crevasse, and, by thus sounding as he passes over doubtful places, the practised expert should be able to tell whether it is trustworthy or otherwise (see illustration opposite). Moreover, a crevasse that is likely to prove a serious danger is almost always of considerable length transversely, and its presence will be indicated either to right or left of the route being followed.

Thus the tyro may often be astonished at what he calls the marvellous instinct of the Swiss guide, who seems to know as if by magic where there is a crevasse. Nevertheless, this instinctive magic is but a natural result of the use of his powers of observation, and, though many people put their faith absolutely in the Swiss guide, there is not the slightest reason why an educated Briton should not also use his eyes intelligently when walking over snow-covered glaciers.

Mounting steadily upwards over our imaginary snow peak, we may notice that it will very likely grow steeper higher up, and the best approach to the summit may be by a well-defined snow-ridge. This means of progress is considered best, as the steep face of the high peak itself will probably be swept by falling masses on all the bigger heights. Most likely there will also be patches of incipient overhanging glacier clinging to the upper slopes below the summit; and besides the obvious danger of their collapse and the advisability of always keeping from underneath them, it is an impossibility to climb up overhanging ice. Thus after leaving the *névé* we may have to mount up a steep snow gully to reach the crest of the final *arête*, or an easy snow and rock ridge may afford an alternative route.

When the easier slope of the *névé* ends and the steeper gully begins, one of the most formidable kind of crevasses will be in evidence. This is called the *bergschrand*, and the same obstacle is likely to be met with before the rocks are attainable (see illustration opposite). A difference of opinion exists regarding the cause of this peculiarity, but probably it is brought about in some way by the differing rates of movement of the *névé* and the hard snow that is lying comparatively motionless and frozen on the rocks or steep *coulair* above. Later in the season these *bergschrunds* may be a hundred or more feet wide,



SOUNDING A SNOW-BRIDGE ACROSS THE BERGSCHRUND ON THE SCHRECKHORN

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and they may make a mountain unapproachable by the ordinary route. But, as a rule, they get choked by falling fragments or small avalanches at some point, and during an ordinary season a safe bridge is probably available to facilitate the passage. If one of these is not present at the point of approach, it will be advisable to walk along the lower lip of the schrund until an opportunity occurs. Whilst doing so it must be remembered that our "pathway" may overhang the depths of the crevasse, and if we walk too near the edge huge fragments may split off and cause a serious accident. Some schrunds are safe in this respect, and a glance along the fissure from its crest will usually disclose the danger, but if any doubt exists, the ice-axe should be used as a probe for sounding purposes (see illustration, p. 420). The upper lip of a difficult bergschrund will probably overhang, and the leader may have trouble in effecting a lodgment above it. In many cases where the schrund is comparatively narrow, the second man can stand on the top of the lower lip, and assisted by the rope allow his body to swing across until his arms rest on the opposite icy wall. The leader can then mount over his back and shoulders, using him as a sort of human bridge until steps can be made in the upper lip, and a large step can be hacked in the slope above him, from which he can hold the rope during his companions' ascent.

The last man of the party may have a troublesome time in following the others, and he will find that the ability to climb up a rope is a useful accomplishment under such circumstances.

If the schrund is bridged, the same precautions should be taken as indicated in the previous section on snow-bridges.

A miniature bergschrund is sometimes encountered a few yards above the large one, and as this may be deceptively masked by snow, it is an easy matter for the careless climber to disappear in its depths.

CHAPTER VII

SNOW-CRAFT—*continued*

“Look therefore carefully how ye walk.”—ST. PAUL

LET us suppose that the route now lies up a steep snow-filled couloir, there are several points that require attention under varying conditions. If the snow is frozen until it is firm and strong, quick progress may be made by kicking steps with the boot-toes; or, if the surface is too hard for this, by scraping out foot-holds with the adze end of the axe. A little practice in this form of step-cutting will enable the leader to take his party up a slope at a quick pace. Grasping his axe near the head with either one or both hands, according to the hardness of the snow, one or two scraping strokes should suffice to fashion excellent foot-holds.

There is a sort of unwritten law that a party should work their way up such couloirs and steep slopes by a series of zigzags (see illustration, p. 38). Englishmen almost invariably adopt this method, but, on the contrary, many famous continental mountaineers climb straight ahead and ask why we do not do likewise. The reason is somewhat difficult to give, because much time is undoubtedly wasted, and efficiency is often sacrificed if the zigzag habit, for habit it certainly is, is indulged in without due regard to circumstances. An expert Frenchman once asked me the reason for this national peculiarity, and I was somewhat puzzled in finding a sound answer to give to such an authority, when I recalled some of his wonderful achievements on difficult snow and ice. However, I could but express an opinion that zigzag progress is less fatiguing, that steps are easier made from a sideways position, and any falling fragments upset by those above are not so prone to fall on those below. I cannot think that he



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CUTTING STEPS UP THE GREAT COULOIR ON THE WETTERHORN
CHRISTIAN JOSSI IS THE LEADING GUIDE; THE EIGER, MÖNCH AND JUNGFRAU ARE SEEN BEYOND

found these very convincing reasons, but personally I prefer our English method, principally because it is less tiring and most men find it is always better to conserve their strength as much as possible. The unexpected sometimes happens on the mountains; for instance, a storm may arise and the party may go so far astray that they become involved in much greater difficulties than they anticipated. It is in these cases that a reserve of strength is so important.

However, to return to our snow couloir, if the snow is of the right consistency for kicking steps, there is no serious objection to the party making a bee-line up it. When ice is present and the requisite steps have to be cut with the axe, zigzags are preferable. If, as is very probable, the couloir has rocky walls or there is much snow above exposed to the sun's rays, there will be a deep groove near the centre down which dislodged fragments will be constantly prone to fall. This should be avoided as much as possible, and one side of the couloir adhered to throughout.

Steeper sections may be encountered, and there, if the snow is not too hard, various members of the party should drive their axes in it as far as possible. Then the rope can be passed around these improvised belaying-pins, and a slip by anybody would be easily arrested. This means of anchorage should be very generally adopted on steep snow, and, where ice is present in patches, the precaution adds greatly to the safety of the party.

If the consistency of the snow or ice in the bed of the couloir permit, each man should steady himself in the steps by plunging the broad adze head of his ice-axe into it continuously, as upward progress is made. It might be noted that the climber should not use this method to raise himself except under exceptional conditions, as the axe is very liable to slip out of its hold unless a very steady pull is exerted on it.

If the zigzag plan is adopted, it is advisable to make a step large enough to accommodate both feet at each turn. If a descent by the same route is intended, the steps should be made at the right places, and above all not too far apart; but this is of far greater importance if the bed of the couloir contains ice. On a steep slope the steps might be on the average from 6 to 9 inches apart, whilst on easier slopes proportionately longer distances may separate them.

Unfortunately the art of cutting steps up an ice-slope can scarcely be learnt from written instruction, and the best way is to carefully watch either a first-class guide or amateur at work. Thus an idea of the first principles can be gained, and the tyro should find some suitable short ice-slopes on a dry glacier where he can practise and to some extent perfect his knowledge in cutting both upwards and downwards. He will quickly realise the importance of keeping the steps close together, and learn that a step a few inches to one side or the other may make the balance very awkward. As a beginner, he will also appreciate the advantage of the zigzag method, for it is much less fatiguing to be able to cut the steps from each shoulder in turn. When proceeding thus a large step of the "soup-plate" variety should be made at each turn of the zigzags.

The pointed end of the head of the axe should always be used for ice-cutting, and the adze may be used to clean out any chips that lodge in the steps. The handle of the axe should be grasped firmly with both hands and the blow delivered at first with a swing from the shoulders (see illustration, p. 283). As the step nears completion a lighter stroke with the arms will be necessary, for the ice is brittle and inclined to come away in flakes.

A properly finished step should be large enough to hold the whole of one's foot in a slightly sideways position, and the most important point of all is to make it so that the tread of it slopes inwards. Of course in actual mountaineering the size of the step will vary with the situation. Sometimes on a short stretch where a slip would involve no danger, small notches that are only large enough to hold the toes of the boot may suffice. On the other hand, on a long, steep, and dangerous ice-slope the steps might be made "as large as a coal-scuttle," though smaller ones are generally used by expert parties.

Under such varying circumstances, it is difficult to say how many strokes should be taken in cutting an ice-step; it may vary from ten to a hundred. I have seen a careful expert take nearly two hundred strokes for each step in a special situation and under exceptional conditions.

If properly undertaken, ordinary step-cutting should not be fatiguing, but the novice will usually soon "slog himself out," to use a cricketing term, and next day he may be afflicted with



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CUTTING STEPS DOWN-HILL

severe stiffness of arms and body. Standing in an ice-step with one's toes supporting most of the weight, and swinging an ice-axe in all sorts of constricted attitudes, needs considerable practice before it can be done neatly, naturally, and without undue exertion. The great secret is so to fashion the steps and so adapt the body to them that the position is always one of comparative comfort. As in rock-climbing, "slow and sure" should be the maxim for ice-work. If a step is found after completion to be in the wrong place to permit proper balance, no hesitation should be made in cutting another.

On very steep ice it may be essential to cut hand-holds as well as steps, but this is seldom necessary, and then only for short stretches. I am fully aware that voluble descriptions have been given that might indicate the contrary. For instance, a well-known cleric tells an exciting yarn about his ascent up an icicle 50 feet long, that hung from the upper lip of a berg-schrund. The method of anchorage was strikingly original, for he said that to enable himself to use the ice-axe he had to freeze to the icicle before each step could be made. Climbers are truthful as a rule, and the actualities of the sport are sufficiently exciting at times to make it quite unnecessary to emulate the fishing man's imagination.

For cutting steps during the descent the same general principles apply reversed as for the ascent. Experiments will soon convince the beginner that the zigzag mode of progress is again advisable, and the illustration on the opposite page explains the usual attitude better than much description. To cut steps safely and neatly down steep slopes requires correct methods, which can only be learnt by long practice, preferably in charge of an expert (see illustration opposite).

In ascending some exceptionally steep couloirs it may be found necessary, for the sake of an easier route, to traverse right across the slope to the other side, and if the ice is very hard this may involve very difficult and laborious step-cutting. Large recess-like cavities may have to be made, capacious enough to accommodate both feet at a time, with the upper part cut away to give room for the ankles and knees. Such a traverse would be considered risky if any novices were included in the party, in which case it might be advisable to make use of the rocks on the side of the couloir for anchorage. Of course

a slip in such a place might prove serious for the whole party, so that the full length of the rope ought to be used to send one climber across the *mauvais pas* at a time. A spare rope is useful in such contingencies, for some couloirs are so wide that a hundred feet or more must be traversed before rocks are reached. Such places are really only for experts, and if a weak party should unexpectedly be confronted with a steep ice-traverse of greater length than that of their rope, they should undoubtedly give up the attack.

In all steps either on hard snow or ice the mountaineer must learn to stand upright and not follow the natural tendency to lean towards the slope. If a step is badly fashioned, and slopes downwards ever so slightly, the foot is much inclined to slip from its resting-place, unless the body is so balanced that it is kept nearly upright. As the novice gains confidence, he will find himself able to do this easily and naturally, but the habit needs cultivating continuously. If a sudden slip should occur on a steep ice-slope, where no means for anchoring the rope is present, there is great difficulty in arresting downward progress unless the rope is held tight between the climbers, and only one of them is moving at a time. Unless the man holding the rope is able to stand properly in the foot-holds as indicated above, the slightest strain is likely to cause him to be pulled from his steps feet first.

Difficult ice traverses must sometimes be made when all members of the party are dangerously situated at the same time. The rope is simply a death-trap to everybody unless a slip in such a place is arrested instantly, or, to use an Irishism, before it occurs. Accidents seldom happen in such places, and fortunately so, for the plight of a party sliding down a long ice-slope is almost a hopeless one. If snow is present they may be able to save themselves, but tremendous presence of mind is necessary to stop the headlong downward rush.

Nearly all beginners, and even seasoned climbers, when they realise they are falling hold the shaft of their axe tightly and plunge the head of it in the snow. Now if the slightest impetus has been gained, this method is useless, for their hands are torn from their grip on the shaft, and the ice-axe is left sticking in the snow whilst they obey the law of gravitation, and career downwards in an absolutely helpless condition.



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A CREVASSE BELOW THE BERGLI HUT

The great art of stopping after a slip on steep, hard, icy snow should be practised by all mountaineers, for it requires considerable coolness and skill to do it successfully at a critical time. The proper method is to grasp the metal head of the axe firmly with both hands, and holding it about the level of one's chest lie face downwards against the slope. A slight turn of the wrists will enable the climber to "brake" with the head of the axe gradually but surely, and it is wonderful how one expert may, if the length of the slope permit, arrest the descent of a whole party.

It is sad to remember how many fatalities might have been avoided had this braking method been adopted. Some travellers display a remarkable tendency to get rid of their ice-axe when a slip occurs, but they must learn never to lose hold of it, for a man is helpless on a steep, icy slope without his axe.

Loose powdery snow is often encountered in ascending a couloir, and it may be in such a loose state as to threaten to slide bodily away carrying the climbers with it. In some cases it will be sufficient to keep close to the rocks on one side or other of the couloir and use them as hand-holds, whilst the rope is kept constantly hitched around any projections that are present. If the soft snow is in a certain state of thickness and lies on a bed of hard ice, it may be necessary to clear the snow and cut steps in the substratum; but this is seldom necessary if the weather conditions are good enough to warrant an ascent being continued.

But we must not delay longer in the couloir or on the lower slopes, for under normal conditions the sunlit summit snows will be calling us up to enjoy a well-earned rest in "the higher purer air."

Though we have dealt with most of the varying technical difficulties that are likely to be met with, there are still some details of the summit ridge that require attention. The vast amount of snow that falls in these higher regions is often blown and drifted into unique shapes and forms. Huge overhanging cornices of snow are almost sure to be present at some point if the ridge is at all narrow. They usually face in the same direction on any mountain on the same day. The discreet mountaineer will be on the look out

for any signs of this formation, and if any are noticed from below facing, say, in a northerly direction, it is safe to assume that the higher part of the mountain will be heavily corniced on that side. Sometimes they are extremely difficult to detect, and a whole party may be walking along an overhanging cornice without knowing it, until their weight and movements cause a great slice to break away and hurl them downwards, a veritable human avalanche. As a ridge is scarcely ever corniced on both sides at the same place the obvious way to avoid such a calamity is to keep well away on the opposite slope (see illustrations, pp. 121, 394). This may involve step-cutting and less pleasant progress, for the upper surface of the cornice is generally smooth, gently inclined, and affords a tempting route; but, as in other sports, the safe way is always the best, though the longest. The ice-axe can be used to sound for a small cornice, but, as a rule, this method is not very reliable when dealing with "big game."

The presence of a formidable cornice at the summit may prevent a party from touching the real top. It might seem superfluous to warn climbers not to partake of lunch on a corniced summit, but accidents have often happened to parties on such places.

One of the most famous was that on the Ober Gabelhorn. This was during one of the earliest ascents of that peak, and Lord Francis Douglas, who perished a few days later in the historical Matterhorn catastrophe, was lunching on its corniced summit with his two guides, Peter Tangwalder (the elder) and Joseph Viennion.

The following is an extract from his private account of the affair: "We sat down to dine, when, all of a sudden I felt myself go, and the whole top fell with a crash thousands of feet below, and I with it as far as the rope allowed (some 12 feet). Here, like a flash of lightning, Tangwalder came right by me some 12 feet more; but the other guide, who had only the minute before walked a few feet from the summit to pick up something, did not go down with the mass, and thus held us both. The weight on the rope must have been about 23 stone, and it is wonderful that, falling straight down without anything to break one's fall, it did not

break too. Joseph Viennion then pulled us up, and we began the descent to Zermatt."

• I have been on the top of Mont Blanc when not a trace of wind disturbed the calm and heavy silence of the vast upper solitudes, and the flame from the match, with which we lit the pipe or cigarette of peace, burnt steadily upwards without a flicker. But this is not the normal state of affairs, and if a cold north wind is playing ever so lightly over the sun-baked snow, we may be glad to begin the descent. It must also be remembered that the snow in the couloirs or on the slopes may be getting into a dangerous condition when the hot sun softens its surface, and the earlier in the day the snow-bridges are recrossed the better.

Under ordinary circumstances the descent will simply be a reversal of the methods followed on the way up, for the steps are cut where required. At these places the party should move downwards very carefully facing the slope, with a trusty man leading and the expert coming last on the rope. The hard snow-slopes, where steps had to be kicked or scraped earlier in the day, may now have melted, so that walking downwards facing outwards is an easy matter. It is of the greatest importance that the heels should be driven firmly into the snow during this process.

When nearing the bergschrund more circumspection must be used, for its upper lip may be corniced, and one often comes to it more suddenly than is expected.

The most pleasant way of descending a snow-slope is by glissading. The climber stands upright on the incline, and allows himself to slide downwards with the axe used behind (see illustration, p. 91) as a brake, and also as a means of steering. A sitting glissade may be taken sometimes by choice or involuntarily, but it is not to be recommended. The sitting method is not a very safe one, for the climber is much more likely to lose control and gain such a speed that he cannot arrest his progress when necessary. This is often a serious drawback to glissading, and many experienced mountaineers make a stringent rule never to indulge in the luxury. Even on a comparatively harmless-looking slope the glissader may suddenly glide on to an icy section where, for instance, rocks may have shaded the bed of the couloir from

the sun's melting rays. He will fly off like a shot from a gun, and if rocks or deep crevasses are below he will probably spend the rest of his life in the descent thither.

Glissading is one of the most fruitful sources of Alpine catastrophes. These generally arise through the party making the descent by a route different from that which they followed on their way to the summit. Probably they can see a long tempting sweep of snow leading apparently directly down to the *névé*, and the suggestion to glissade may be an agreeable one after a tiring day's climbing. However, there may be a long slope of ice lower down, or a great crevasse may lie hidden by a bulge of ice, and its yawning abyss will be practically invisible until they are well within its clutches.

I well remember the advice given to me by the late R. Pendlebury, the well-known mathematician, after my own earliest glissading experience. He was reputed to be one of the most daring of the early pioneers of the Alps, and yet his maxim was, "Never glissade down a slope unless you have ascended it just previously."

The incident that led to the advice being given is worth recording, because it will show that even our British mountains may have their dangers in this respect. The scene was on Scawfell Pike many years ago, and a large party of us had been having our first introduction to serious snow-climbing. The exuberance of youth must have led me to thoughtlessly begin glissading down a long slope towards Piers Ghyll, despite the remonstrances of the seniors.

All went well for a few yards, but the surface of the snow became icy as I slid past below the shade of some high rocks. The speed grew alarming, and suddenly my feet sank through a transverse crack almost like a small incipient *bergschrand* which ran across the slope. The result was startling. The sudden stoppage of the feet upset my balance completely, and after describing some ungainly gyrations, I went crashing down head first towards some rocks straight ahead. Verily I was on the horns of a dilemma, but a quick glance to the right showed that the slope was longer in that direction. Fortunately my ice-axe was still retained, and by somewhat convulsive steering, I was able to make for this, which would at least afford a further respite. However, hope



Abraham

GLISSADING DOWN THE EIGER—TYPICAL ATTITUDES

brightened during the final rush, for the gradient appeared to ease off at the bottom. The slope did not belie its appearance, but the impetus gained above was sufficient to sweep me over the easier part, and I made a precipitate acquaintance with the scree beyond the snow. But the end was not yet. The sudden stop caused me to describe an undignified series of somersaults in mid-air, during which performance my ice-axe arose and smote me between the eyes. Then there was peace for a time. My next view of the snow-slope was some minutes later when consciousness returned, and I discerned my companions hurrying downwards. My wounded forehead bled profusely, and no doubt my friends' worried looks were fully warranted, for the sight must have been a gory one. Strange to say no bones were broken, but for several days I felt like a mass of bumps and bruises.

The lesson I received that evening will never be forgotten. Would that some of my friends had had a like experience, for one of them with less good fortune has since paid the penalty; his first glissade was his last. However, the warning has been given, and we will turn to more cheerful matters.

The best way to learn to glissade properly is to practise on an easy slope with soft snow at the bottom. In Switzerland it is sometimes an amusing sight to see the guides below such a place fielding amateur novices as they come careering head first down the mountain-side, describing most marvellous gymnastic feats in their attempt to recover the lost balance.

The guides delight to choose a slope with great banks of soft snow for the finish, and roars of laughter greet the arrival of the beginner, who generally has to be rescued from the drift by means of his legs. Some personal remarks usually follow on the part of the amateur regarding the clumsiness of the fieldsman; and I have heard a guide who was interested in our leading national sport once glibly retort that the grumbler "was well caught at leg."

It will be obvious that glissading, even when practised by experts, possesses certain elements of uncertainty that should preclude its use as a means of descent on the slopes above the bergschrund. True it is that certain authorities have written of shooting the schrund intentionally by the impetus gained through sliding at some speed down the slope

above it. Sometimes this performance is entirely successful if the bergschrund is situated on a steep enough place, and other conditions are favourable. Personally I have seen too many guides and amateurs suffer minor accidents on such places to feel justified in expressing an antagonistic opinion.

It frequently happens in descending from a peak that the bridge used in the ascent of the schrund has become useless or collapsed altogether. As the upper lip is often, at some point or other, in a vertical line above the lower one, the various members of a party can be lowered, one at a time, until the last man only remains above. Sometimes it is possible for him to jump, if the lower lip consists of a mass of piled-up soft snow, but those below should previously inspect the landing-place carefully, to ascertain that it is not an overhanging cornice. If these details are attended to, it is possible to take a drop of 20 feet or more with ease and safety.

Circumstances, however, may not be so favourable; then the last man may be obliged to drive his axe firmly into the slope above the schrund, and descend to his companions by means of a doubled rope. Of course, this would only be as a last resort, for the axe would have to be left behind, and this is usually considered bad mountaineering form.

If the party has unroped for the passage of the schrund, they should resume their places on the rope for the descent of the *névé* or upper snowfields. The snow-bridged crevasses are certain to be dangerous in proportion to the warmth of the day, and a more sinuous route may have to be followed than that adopted for the ascent in the morning.

Jumping is never lightly to be recommended in any sort of climbing, but probably it is justifiable as a means of crossing some of the narrow open crevasses. Nevertheless, care should be used to ascertain that the landing-place is firm, as the lower side of a crevasse occasionally possesses an overhanging eave of snow.

It needs good memory and powers of observation to be able to find the same way down an ice-fall as that used in ascending. The most important feature is to strike the route at the beginning or thereabouts. Time may be saved

if some spare article of attire has been left on the ice at this point, or a few gashes in the surface of the glacier with an ice-axe may assist in locating the route. However, as the party has probably had a surfeit of the beauties of the snow and ice world for one day, they may prefer to take to one of the lateral moraines at the first opportunity. Though this way is not so entertaining, it will save time as well as exertion, and most climbers possess a peculiarly poignant desire to be present at *table d'hôte* after a long day on the mountains.

Wherever mountaineers congregate, there is sure to be much talk about the "condition of the snow," and a thorough appreciation of the meaning of these words is known only to the experienced mountaineer.

The snow in the high Alps will be found in every state, from the soft powdery kind to the hardest of blue ice, on different days. Snow is said to be in good condition when it is hard and firm, but not icy, and it is bad when soft, avalanchy, or crusted. As a rule, three or four fine days are required after bad weather before the state of the snow will permit of a difficult peak being tackled. The determination of the earliest time after such weather, when an attempt would be safe and permissible, requires certain instinctive knowledge, which is obtained only by long experience. Very few amateurs can hope to have this knowledge, and in this department a first-class Alpine guide is usually his superior.

If the peak consists for the most part of rock-work, as, for instance, the Matterhorn, the amateur expert will be able to judge to some extent by the amount of snow to be seen on the rocks. On the other hand, these may be apparently almost clear after a couple of sunny days, but the guide will know that, if a north wind is blowing, the upper section is likely to be cased in hard ice. The ascent would probably "go" as far as the Shoulder, but there would not be sufficient time to clear the ice off the summit rocks or make steps up the dangerous slopes which, by the afternoon, would have grown avalanchy as a result of the sun's heat.

On a peak whose ascent is composed mostly of snow-walking, it is well to note that three fine days at least should

be allowed for the surface to become reliably strong and firm. Of course, many ascents are quite permissible before that time, but the snow would be rather soft, or more probably of the crusted kind.

It should be remembered that in fine weather hard frost is usually experienced every night in the Alps, and, though the heat of the day may soften the snow, it will be frozen hard on the surface during the hours of darkness. This action goes on day after day, until the snow has settled down, but when only crusted, it will not support one's weight, and is liable to give way at every step. This makes travelling very laborious, but if the heaviest man is sent to the front, his companions will find progress much easier by keeping in his steps. Under such conditions the labour may be lightened by changing leaders occasionally.

It should be a golden rule with all climbers not to indulge in their sport in bad or doubtful weather. Nearly all the fine weather in the Alps and on our British mountains comes with the north or north-east winds. When it blows from any southerly direction, unreliable or even stormy weather is almost certain to appear, and all authorities agree that the Föhn wind in the Alps is a sign that no high ascents should be made. This is a warm breeze that comes from a south-south-easterly direction, and its effect on snow mountains is sometimes almost magical. Slopes, hanging glaciers, séracs, and cornices that previously seemed firm and reliable will now become loose and unsafe. The warm air seems to pervade the very vitals of the mountains, for avalanches large and small pour out from the most unexpected quarters, especially if snowstorms have been prevalent a few days previously.

The effects of a strong north wind are not always favourable, for its action may keep the temperature so low that the snow retains its powdery formation or becomes granular. The well-known remark at Chamonix "*Mont Blanc fume sa pipe*," usually indicates that these conditions prevail aloft, and the mountain is not in a suitable condition for an ascent. A long white streamer of powdery snow may stretch far across the sky to leeward from the summit. Though beautiful to look upon, fleecily outlined against the deep blue sky, the

expert, who has once been in its chill grasp, will shudder and turn away. Not a cloud may be visible, and the valley may be oppressively hot, but he knows that an arctic blast is tearing in mad hunt across the upper ridges, and few ordinary mortals could stand against that swirl of icy spiculæ that carries frost-bite and other kindred evils in its grasp. Thus it will be seen that the weather and the condition of the snow are intimately associated, and the proverbial fickleness of the former is largely responsible for the difficulty in diagnosing the latter from the valley. The finer judgment on this point as well as proper discrimination in the choice of routes become matters of instinct after long practice.

Why the expert should choose one particular ridge or couloir in preference to others is as difficult to explain as the same kind of intuitive reasoning that constantly occurs in other sports. In cricket, for instance, the great batsman cannot define the reason why in an instant he knows exactly how to treat every ball, and that without mental effort.

In all sports it falls to the lot of few men to excel, and in mountaineering this is specially so. The real expert realises more than his less experienced *confrères* the smallness of his best efforts, and never is an expedition undertaken without his adding to the almost endless store of technical knowledge that is required if he is safely to indulge in mountaineering. The great mountaineer is the man with all his senses on the alert, and though, despite his comparative insignificance, he may revel in the glories of nature's most stupendous handiwork, he must never neglect the laws which govern his craft, nor forget for a moment the penalty of neglecting them.

CHAPTER VIII

CLIMBING WITH AND WITHOUT GUIDES, AND SOME GENERAL CONSIDERATIONS

"It is there that I am going, where the boulders and the snow lie
With a trusty, nimble tracker that I know."

"Unto each the voice and vision, unto each his spoor and sign,
Lonely mountain in the Northland, misty sweat-bath 'neath the Line,
And to each a man that knows his naked soul!"

R. KIPLING

THIS is an age of hero-worship, and all branches of sport are more or less affected with the tendency. The casual visitor to a great football or cricket match can scarcely fail to notice the fact. Varying sections of the vast crowd, the majority of whom have never kicked a football or handled a cricket bat, fairly gloat over the successes and achievements of their "ne'er-do-wrong" favourites, whose boldest errors are converted into some abstruse acts of marvellous intention. The greater the spectator's ignorance of the game the blinder and more senseless his worship.

The sport of mountaineering, in these days of popular favour and crowded Alpine centres, suffers lamentably from the same evil. For evil it is if we appreciate the dangers that the average travellers or tourists run when they engage any guide who may chance to present himself to take them on a glacier expedition or up some easy peak.

The lay mind thinks that the average Swiss guide is simply immaculate, and if several of these heroic mortals are conciliated by immoderate pecuniary temptations, they are able to take their patron anywhere in perfect safety. These are the kind of people who, in their ignorance, condemn guideless climbing; and if any mishap should occur to such a party, their first remark is a scathing reference to "those fools who climb without guides."



Abraham

A SMOOTH CRACK ON THE AIGUILLES ROUGES, AROLLA

SHOWING THE USE OF THE FEET ON SLOPING FOOT-HOLDS

But there are two sides to this question. For instance, I have heard a well-known mountaineering expert, who understands most intimately the inner details of the argument, say that the modern guide is one of the greatest dangers of the Alps. He can give lengthy proofs of his statement, and it is a striking fact that the greatest continental climber of the present generation followed the higher branches of the sport for twenty-five years without receiving any professional assistance, and then engaged a guide for a certain expedition with most unfortunate results. The guide slipped whilst descending an ice-slope and the amateur was torn from his holds. As a result of the ensuing fall injuries were sustained to which he eventually succumbed.

The truth of the matter is, that there are both good and bad guides, and even the best of them is scarcely superior, from a general mountaineering standpoint, to the most expert of amateurs. The former may know all the details of his local mountains, and possibly he can even lie in bed and picture in imagination every hand- and foot-hold that will be used in scaling the most popular of his peaks. But this is not altogether an advantage, for familiarity is much inclined to breed that contempt which borders on gross carelessness, and consequent disaster may result. To reach this stage of specialisation would also be likely to signify a want of knowledge of more distant peaks.

The first-class amateur is scarcely likely to suffer from these tendencies, for he has learned to treat all mountains with due respect, and his wide experience of various ranges and formations should strengthen his claims to be a mountaineer in the truest sense of the word. The professional who is equally first class is extremely rare, and I have no hesitation in saying that there are not more than a dozen such in all the Swiss Alps.

Thus it will be apparent that the primary difficulty to confront the novice who first visits a popular Alpine climbing centre is the choice of a guide. To secure the very best available should be his principal aim, otherwise careless and improper methods may be acquired, whilst the dangers of following an incapable leader will be obvious.

All the really first-class men will probably be engaged

several months or even a year in advance. A dependable second-rate guide who understands the principles of the craft thoroughly will be suitable enough for any ascents a beginner in the Alps ought to make during his first season. Should he be lucky enough to possess friends who know something of the vagaries of the average professional, he should ask for and act on the advice of one of these. However, the bulk of beginners are not so fortunate, and for their sake I propose to give a few hints on the selection of a guide.

In Switzerland the guides are possessed of what we might call a government licence, and this is awarded after so many years' work on the mountains as porters, whose principal duty is to carry the bulk of the luggage of a guided party. To secure their "guide's certificate" they must also pass an examination, in which arithmetic and general knowledge form considerable features. As a result of this prolonged education they are on the whole an extremely intelligent body of men; in fact, the best of them are gentlemen in the truest sense of the word, and we have no class of professional sportsmen in this country of quite the same calibre. Many of them speak two or three languages fluently, and many young guides spend their winter in England learning our language. A year or two ago the son of a famous Dauphiné guide was discovered by an English climber washing bottles in a great London hotel and picking up stray scraps of a doubtful dialect. In kindness he took him for a climbing holiday to Cumberland, and at the close of the outing a mutual appreciation induced him to stay with the landlord at Wastdale Head to learn English. Those who know what resemblance the broadest Cumberland dialect, as spoken "behind the scenes" at that place, bears to our normal language will be able to imagine the result. Next summer one of his patrons in the Dauphiné was astounded when, as a result of a sudden slip on the Meije, the guide shouted in great excitement, "Whar's ta gaun? Hod teet t' rāape, thou chump-head."¹

Many guides, however, speak comprehensible English even under the most trying conditions, and the novice who knows only his mother-tongue should in the first place secure a man who can make himself understood. The best way to find

¹ *Trans.*, "Where are you going? Hold tight the rope, you chump-head."

such an one, and whether he is suitable in other ways, is to ask the advice of some English climber who may be staying in the same hotel, or failing that, the landlord or his representative will be able to give the necessary information. But it should be noted that many of the big hotels have guides engaged as part of their staff, and as a rule these should be carefully avoided.

Those guides who so politely come and tout for your patronage, especially those who meet the trains at the railway terminus or stations *en route*, are not to be recommended. The young climber is often misled by the kind attention and persistence of the latter, and even cajoled into some indefinite arrangements before he reaches his destination. Perhaps imperfect linguistic powers may lead to a misunderstanding on these points, and much unpleasantness will ensue. Utter aloofness is the best treatment for these touters. A first-class guide never descends to such tactics. Some professionals are famous for their records of accidents, and though the worst of these men generally lose their certificate, others are at liberty to make their patrons share their risky methods. No novice should engage such notorious characters. On the other hand, some of the first-class guides have been unlucky enough to figure in catastrophes for which they were absolutely blameless, and some discrimination is sometimes necessary before a decision is arrived at on this score.

Most of the certificated professionals possess what is called a guide's book, which usually contains flattering recommendations from former patrons. The principle is good enough, but the most expert amateurs, for some indefinable reason, scarcely ever make use of the guide's book to express their appreciation of his services. Novices and ordinary tourists who make a few of the popular excursions write extensively in praise of the owner of the book, and probably recommend him to everybody as a "genial, capable, and expert guide." Such opinions are not worth very much, and the beginner who wishes to become proficient at the sport, by learning under the best professional care, should recognise this fact.

Another feature of the guide's book may prove of real service in judging of its owner's experience and capabilities. If the excursions made are only up three or four peaks time

after time, by the ordinary popular routes, it is safe to assume that the guide is sadly lacking in initiative and originality, whilst his experience will not be of a very extended nature. Several of the best men possess letters from well-known experts who have made ascents in their company, and these recommendations are generally dependable, especially if their recipient has accompanied the writer of the letter to distant mountain ranges outside the Alps.

A good guide, besides having acquired a thorough, all-round mountaineering knowledge in conformity with the principles laid down in other chapters, should possess a genial disposition, temperate habits, and a goodly store of physical stamina. Regarding bodily stature, quality is preferable to quantity, and it is well to remember that several of the finest guides that have ever lived were short in height, and, in some cases, almost as broad as they were long.

The question of payment next demands attention. In most districts of the Alps there is an authorised tariff for each mountain expedition. A copy of this tariff is often printed in the guide's book, and in some districts a list of the fees charged for the local peaks may be found posted up in the hotels.

The difficulty of an ascent cannot altogether be judged by its price on the tariff; for instance, a popular peak like the Matterhorn costs 100 francs (£4) per guide, whilst the much severer ascent of its neighbour the Dent Blanche can be made for a fee of 80 francs. For such peaks two guides will usually be necessary; so it will readily be understood that extensive mountaineering with guides is not for the man of moderate means. However, these tariff charges are applicable more to the ordinary mountain traveller who visits the Alps and wishes to make one or two ascents as part of his tour.

The man who takes mountaineering seriously should proceed in a different manner. The usual plan nowadays is to give a guide an engagement for a fortnight or more, and pay him at the rate of from twenty to thirty francs per day according to his skill and the class of peaks that will be attempted. During a favourable summer first-class peaks are often in good condition during the latter half of June; and the first half of October will sometimes prove the finest part of the whole year. The question of supply and demand

affects the guides, and an amateur who "knows the ropes" can make more reasonable terms at those times; but during the popular holiday months of August and most of September it is often difficult to obtain the services of a good guide at all. An average fee of 25 francs per day would be a very fair price to pay the best of guides during the height of the season for a fortnight's climbing, say, in the Bernese Oberland. This would include ascents of the first-class peaks by any of the usual routes.

The same would apply to other well-known districts, but for the most difficult of the Chamonix aiguilles, such as the Traverse of the Grépon, an extra acknowledgment of 25 francs or even more might be fairly demanded and given with a good grace. This will be apparent when it is stated that the tariff for this climb is 300 francs per guide, and two are generally required. It should be distinctly understood that when working on these terms, the guide receives his payment whether any climbing is in progress or not. If ill-fortune, such as slight disablement, illness, or bad weather should occur, the amateur may lose considerably on his transaction. But this seldom occurs, and the law of averages usually asserts itself largely in his favour.

The too energetic enthusiast is sometimes inclined to overwork his guides, but as a rule an off-day is only their just reward after a long and fatiguing outing. Consideration in this respect will probably receive its reward in greater attention, and an enthusiasm as to the conduct of the expeditions that may lead the guides to introduce their companion to specially interesting routes.

In his early attempts the novice may require two guides if first-class peaks are included in the programme, but he will quickly be able to dispense with the second man and engage a porter instead. These men are often very little inferior to an ordinary guide, but their fees are much lower, and twelve to fifteen francs per day would satisfy most of them.

Other methods of payment are in vogue, such as an agreement whereby so much is paid for a pass or ordinary day's excursion, and so much for each peak ascended during the time of the engagement. Complications may trouble the beginner who follows the latter plan, but with a little generous

forbearance the scale of payment by so much per day, as formerly mentioned, works with entire satisfaction to both parties. If this arrangement is made the guides, or guide and porter as the case may be, are at the daily services of the amateur, and complaints of lack of attention or enthusiasm are seldom heard.

It might be mentioned that the amateur is responsible for the payment for the food supplies of his guides during the expedition, and at other times when they are unable to live in their own homes. Lower rates are charged for their board and lodgings at most of the hotels or mountain huts visited, and the local railways make special concessions in the matter of fares.

After the novice has gained a little knowledge he will find it a great saving of expense to join another climber of like experience, and a guide and porter will usually supply sufficient professional aid for such a party. The above remarks as to payment of guides apply more especially to the popular centres; in less frequented parts, such as the Dauphiné or the Italian Alps, good local guides can be obtained for from 15 to 20 francs a day.

Finally, regarding money matters, it will be noticed that the "tipping" system is one of the troubles of Alpine travellers. When it is remembered that the head waiters at many of the great hotels not only receive no wages but actually have to pay the landlord a large sum to obtain the post, it will explain in some degree the importunity of these and others of the hotel staff. Everybody expects a *pourboire* or *trinkgeld* in the Alps, and the guides are no exception to this rule. However, most mountaineers will feel in a generous mood towards the latter, unless they have special cause for feeling dissatisfied, in which case no gratuity should be given.

Wealthy amateurs have been known to give their guides ten pounds or more each at the end of a successful holiday; but this is altogether unnecessary, and guides quickly become spoiled by such treatment, which usually implies excessive extravagance throughout the engagement. Such liberality is often a mistaken kindness, and leads to intemperance and consequent loss of work, besides inclining some of the guides to treat their poorer patrons with less consideration.

Of course it is a delicate matter to suggest the amount of *pourboire* to be given, and my suggestions must be taken as a hint and nothing more. It might be mentioned that the natives in the Alps live very cheaply, and a sovereign to them is equal in value to two or three to the same class of people in England. Such a sum would be a fair gift after a satisfactory fortnight's engagement; but unless special circumstances have arisen, I do not think that a gratuity of more than two sovereigns should be given.

Having engaged his guide the novice should begin very carefully, by taking a few days for training by means of walks, which might include a visit to some of the lower glaciers, and thus they will gain a knowledge of each other's personal qualities. The great point to be remembered is to gradually become accustomed to the varying conditions of life and air-pressure in the higher altitudes. If the enthusiast should begin too quickly by tackling some high peak and overdoing himself, he will most probably fall a victim to the mysterious illness that lurks amidst the higher regions and is called mountain sickness. Glorious weather may tempt him upwards before he has become acclimatised, and some restraint is necessary in resisting the temptation. Even seasoned mountaineers usually recognise the wisdom of a day or two of "preliminary skirmishing" at lower altitudes, yet climbing holidays are constantly spoiled by neglect of this precaution during the first few days.

There are two kinds of expedition to be made under ordinary conditions in the Alps: those that are long enough to require two days, and those which may be completed in one long day if an early morning start is made. The big peaks usually come in the former category, though many of them, including Mont Blanc, have been conquered in one day by experienced and powerful walkers.

In these single day expeditions it is often necessary to start as early as 1 or 2 a.m., when the non-climbing inhabitants of the hotel are, or should be, enjoying a peaceful sleep. A promising morning with perfect weather may arouse the mountaineer's jubilant spirits, but he should remember the somnolent ones, and realise that the corridors or landings are not suitable places on which to execute a species of war-dance

whereby his exuberant spirits are partly expelled. In fact it is but reasonable to expect that as little noise as possible should be made; conversations should be carried on in a whisper, if at all, and the climbing boots should not be put on until the stairs have been negotiated, early breakfast disposed of, and the entrance hall reached.

For two-day expeditions a start will generally be made after early lunch on the first day, and the night spent in one of the Alpine Club huts at some height above the valley. This method often means an uninteresting "grind" up the lower slopes during the hottest part of the day, if the way lies up the sunny side of a valley. I prefer to make an early morning start, and thus leisurely progress can be made and a pleasant day spent above the relaxing conditions of the lower regions.

In any case, arrangements for provisions had better be made the previous night, and, though the guides are as a rule capable of superintending this, the amateur will be wise to make the arrangements himself with the hotel representatives. Hints have been given in earlier chapters on these matters, but, personally, my food supplies would be of the simplest kind. Two or three cold, boiled chickens, plenty of bread, butter, tea, sugar, cheese, condensed milk, and tinned soups and jams, some home-made cake brought out from England, and some lemonade and red wine, form the bulk of the commissariat arrangements. A few prunes and raisins or biscuits can be carried easily in the pocket, and a stone from one of the first-named, if retained in the mouth during the day, will act as a splendid preventative of thirst.

En passant, it may be advisable to mention that on many of the popular peaks, such as Mont Blanc, the "half-way hut" is under the charge of an attendant, and well stocked with provisions. Though the guides generally advise buying these, it will soon be realised that the prices are extortionate, and in fact "rise as high as the huts themselves," so that it is generally better to bring up one's own food, or part of it from the valley.

Before departure the amateur should make certain that all his various articles of equipment are included, and his personal belongings, such as gloves, puttees, goggles, ice-axe with its



THE BERTOL HUT,—A TYPICAL ALPINE SLEEPING-PLACE

Abraham

sling, etc., should be in his own keeping. The new rope should not be forgotten, and the guides ought to understand perfectly that this must be used and not the ancient relic which they so often carry.

One of the greatest secrets of success in the Alps is the ability to walk slowly up-hill, and the easy, almost slouching gait of the best guides is worthy of careful imitation. Always remember that the greater the surplus energy and reserve of strength the better, for circumstances may arise, such as sudden storms and blinding mists, which will try the powers of the man who has spent the morning "racing" up-hill.

Most of the loftier huts in the higher districts belong to some section of the Swiss or other Continental Alpine Clubs. Many are well provided with sleeping blankets, cooking stove, and utensils, and the various details which enable a party to spend one or two nights under their shelter in comparative comfort. These huts are generally unattended and unlocked, but early and late in the season the key may be in charge of some well-known and reliable guide who lives in the valley. He is responsible for the good condition and repair of the hut, and the key will be handed over on request to any dependable guide or amateur who is a member of the Swiss Alpine Club.

These huts are really at the disposal of all mountaineers, members or otherwise, but it is absolutely necessary that no damage should be done to the property, and that the interior be left clean and tidy after making use of it.

In some huts a store of firewood is kept and it can be used after making a small payment, but in some cases the wood must be carried up from some high *châlet* or gathered from the upper slopes of the pine forest. In bad weather a party may become snow-bound in one of these high huts, and the exhaustion of their supply of firewood may *in extremis* cause the climbers to use some of the wooden interior for cooking purposes or warmth. In this case, or when any damage is done to the property, notice should at once be given to the caretaker, and liberal compensation made.

Guides are usually excellent cooks, and the amateur will find himself well cared for during his sojourn in the hut; in fact, his treatment may be inclined to be too luxurious.

The serious work really begins on the second day, and there will scarcely be much difficulty in making the early start which is always advisable, for some of the party will probably be affected with sleeplessness. Reasons for this will be apparent in later chapters, and I have never known the leading guide err on the side of over-indulgence in sleep.

If several parties are staying at the hut the chances of a proper repose are very remote, and continental climbers, especially Germans, are prone to arouse the echoes of the hills with their boisterous songs, which often last far on into the night. In such cases a start will be made soon after midnight, unless difficult rocks occur close to the hut, or other conditions demand that daylight will be required before a certain section can be negotiated. It is better to delay in the hut than to ascend some distance to wait and shiver in the cold morning air until further progress is possible.

Technical matters incidental to the higher regions have been dealt with previously, but one detail connected with the management of guides in bad weather requires attention.

The morning may be fine and promising, but clouds often arise with the sun, and sudden storms may sweep down on the party. Swirling snow and dense mist may blot out all the surrounding landscape and render progress uncertain. The average Swiss guide does not understand the use of compass and map, so under such conditions he must rely on visible landmarks, which are somewhat vague, and a certain instinctive knowledge of direction, which is evidently a natural gift with those who spend so much of their lives on the mountains.

The slope of the ground is always a more or less reliable help, and the direction of the wind is useful in steering a course in mist; but these aids are apt to prove deceptive on some of the almost flat, vast, trackless snowfields, with the storm probably sweeping in a circular fashion within its wide retaining walls.

The careful amateur should always carry his compass with him, and, even if he does not carry a map as well, he should consult it before starting out, and commit to memory the general compass bearings of his peak. Perchance this simple preparation will at some time or other enable him to rescue himself and his guides from serious situations.

Guides are almost always inclined to press forward until they are either practically lost or in great doubt as to their position. The worst feature of such cases is that it is left to the amateur to decide when to turn back, and he may be quite unable to arrive at a proper decision. A severe snowstorm may, in half an hour's time, obliterate the tracks made during the ascent, and when the slightest doubt exists I should strongly urge that retreat be ordered at once.

If searchingly questioned the first-class leading guide will usually give a reliable decision, but the second-rate men are not to be trusted implicitly. Should the expedition be made on the tariff payment basis the guides are much addicted to pushing the attack beyond a reasonable point because failure to reach the summit may mean a reduction of their fee, and this point should be understood when the question arises of giving up an expedition through bad weather.

No difficult rock mountain should be attempted in unsettled weather, for the crags may quickly become so covered or glazed with ice as to render advance impossible and retreat extremely dangerous.

A long length of rope is useful in such circumstances, for if suitable belays can be discovered the last man can descend by using the doubled rope.

In all cases it should be plainly understood that the order for advance or retreat must come from the amateur of the party, be he either novice or expert, and the lack of knowledge of this fact has been the cause of many serious mountaineering calamities. Of course, the leading guide can be questioned in the matter if any serious doubt exists, and if he shows the slightest signs of hesitation the ascent should not be continued.

The question of meals during a high climb is one that deserves a passing notice. Before leaving the hut a light breakfast should be taken, and the second one about two hours later. The beginner scarcely ever knows when he is hungry, and it is an excellent plan to take light refreshment every two hours during the ascent and a rest of at least fifteen minutes meanwhile.

Many climbers find great difficulty in eating at all at the greater altitudes, but the discomfort of so doing should be

overcome as far as possible, for the man who eats best is generally the most successful and best able to enjoy his sport.

It is generally conceded nowadays that the old-fashioned theory that to drink during severe exercise is bad for the human system, is wrong. A well-known physician who, besides being a mountaineer of wide experience, is a great authority on athletics from a health standpoint, has said that "it is best to drink as much as ever you feel you want and what you like, but take care if it is water that it is absolutely pure." Those who know what a mountaineering thirst means will be glad of this most agreeable expert advice.

The ideal of the genuine mountaineering enthusiast should be the attainment of such skill and knowledge of the craft that he would be able to undertake the most difficult ascents without professional assistance.

Although Englishmen were the first to indulge in systematic guideless climbing in the Alps, it cannot be said that of recent years we have kept ahead of continental mountaineers, at least as far as numbers are concerned, in this, the highest development of the sport. There can be no doubt that this is not due to any lack of efficiency or capability on our part, but rather to a more rational appreciation of the value of human life, and the realisation that, before guideless climbing can be justifiable, a party should possess qualifications that are difficult of attainment.

A glance at the newspapers during the climbing season will reveal the fact that the numbers of accidents to continental climbers are simply appalling, whilst those to our countrymen are almost negligible in proportion.

Our Alpine and other British clubs connected with the sport have wisely not encouraged promiscuous guideless climbing. Before this can be safely practised each member of such a party should have had at least three seasons' work under the care of first-class guides. Some men would never be fit to rely on their own resources after a lifetime spent thus, and as a rule these climbers soon realise the truth of this. Others seem to take to the sport like the proverbial "fish to water"; they possess the natural knack of overcoming physical difficulties, and are endowed literally with the

“bump of locality.” These prodigies require a special word of warning, for, especially if they have spent a few years mastering the technicalities of our craft amongst the British mountains, they usually fail to thoroughly realise the peculiar dangers and risks that assail the inexperienced traveller above the snow-line.

Most climbers acknowledge that the joys of victory are keenest when achieved by one's own personal skill and effort, and to many the question of expense is also a serious item. These two points have again and again been brought to my notice by climbers who have performed marvellously on British mountains, and wish to know whether during their first visit to the Alps they would be justified in attempting guideless ascents.

Curiously enough they almost always inquire about the Matterhorn, and though one knows perfectly well that if the peak were in good condition they could simply “romp” up it, one feels bound to answer their questions in the negative. The detailed technical difficulties of this climb to such a party would be negligible, but there are many other considerations that would render an attempt inadvisable. For instance, the length of the expedition would almost certainly trouble them from various causes, the rarefied air might affect their efficiency, and a sudden weather change would almost certainly have disastrous results.

Then comes the further question from the same beginners in Alpinism, “Could we not start on easy mountains and learn gradually?” So-called easy mountains are often the most risky for such parties, because, though they often consist of what the expert would call the simplest snow and ice-work, the British-trained climber is unaware of their peculiarities, and very apt to despise their dangers.

No! One cannot feel justified in advising the heroic method of wresting the secrets from the great mountains themselves at altogether disproportionate risk to life and limb, and the question of expense can have but an insignificant bearing on such issues.

One of the greatest drawbacks to many parties who practise guideless climbing is the fact that some specially expert amateur practically fulfils the duties of guide. The want of

suitable companions prevents many capable men from dispensing with a guide's assistance.

The ideal party would consist of three experienced mountaineers, each of whom would be able to take his share of the work whether as leader on snow, ice, or rock, or as porter. In conformity with these principles a party of well-tried friends could spend a most successful holiday, preferably in the first place amongst the peaks that dominate some of the less popular Alpine valleys.

After a few seasons' experience of this kind there is no reason why they should not gradually attempt the most difficult ascents in the Alps. Then there are the vast unknown and unexplored mountain ranges of other continents whose untrodden peaks are specially adapted for the operations of an expert guideless party. There is no denying the fact that, with one well-known brilliant exception, the use of Swiss guides in mountaineering beyond the Alps has not proved very successful. The huge giants of the Himalayas have thus far defied all human skill to dissipate their inaccessibility. However, present generations of climbers are beginning to realise their powers, and a skilled and enthusiastic party, who climb for the pure love of the sport, may succeed where the powers of gold and hired experts have failed.



Abraham

THE UPPER PART OF THE WETTERHORN—FROM NEAR THE TOP OF THE GREAT COULOIR

CHAPTER IX

THE DANGERS OF MOUNTAINEERING

“Down . . . thou climbing sorrow.”—SHAKESPEARE

THERE is no sport in the world like mountaineering. Its pleasures are not marred by the slaughter of innocent animal life, nor discomfiture to any of our fellow-beings; and perfect health and physical fitness, such as no other sport can give, are numbered amongst its great rewards. But this exuberance of health and the wonderful self-reliance which it is apt to promote oft lead its devotees to overstep the line that separates comparative safety from the gravest danger. Without constant care, prudence, and common sense, mountaineering ceases to be justifiable, and unfortunately it may “degenerate into a gambling transaction against the forces of Nature, with human life for the stake.” Despite all the warnings and advice that have been given, the list of Alpine fatalities goes on increasing from year to year, but this is only the natural result of the tremendous increase in the popularity of mountain travel within recent times.

During the season of 1905 nearly two hundred lives were lost in the Alps, and this is easily understood when one remembers that nowadays all sorts and conditions of men, as well as women, go clambering about the lower slopes of dangerous mountains and exploring crevassed glaciers. Many fatalities are bound to happen to people who scarcely possess even the smallest knowledge of the elements of mountaineering; but, nevertheless, these are usually reported in the English press as climbing accidents, and thus mountaineering as a safe pursuit is brought into popular disrepute.

A short time ago one of our leading newspapers seriously suggested a remedy for all these accidents. Their contributor

would have "warning boards placed on all dangerous places, and danger signals on all the treacherous crevasses." It would be an education worthy of the efforts of the supporters of the Fresh Air Fund, if that writer could be lured far from the dingy atmosphere of Fleet Street to gaze, say, on the comparatively small Glacier des Bossons on Mont Blanc, and be shown its thousands of crevasses that would require labelling. The impossibility of the task would be obvious, and still more so if it were pointed out that the glacier surface is constantly changing.

It is but fair to accentuate the fact that the above list of fatalities conveys an erroneous impression of the dangers of Alpine climbing. Scarcely ten per cent. of them represent accidents to real climbers, and the rest occur to ordinary tourists who stray from the paths seeking rare examples of the flora or fauna, and it is worth remembering that in the Alps there is no more popular form of suicide. Still, it must be admitted that real mountaineering, even if practised under the most favourable of conditions, possesses in a greater or less degree some elements of danger.

Any sport that defies to any great extent the laws of gravitation must of necessity be dangerous, and what recreation is worth its salt unless it possesses a spice of danger? Football, cricket, yachting, and practically all our manly national sports which have made Britons what they are all the world over, would never have appealed as largely as they do to healthy manhood had they been as harmless as say the once favoured game of ping-pong. But the croakers are ever with us, and they abhor all risky pursuits; in fact, as they say, they spend their precious lives keeping out of danger and not courting it. Still, do what they may, it is ever present, and even Mark Twain recognises this when he tells us that "bed must be the most dangerous place because so many people die there."

In none of the strenuous sports can the causes of danger be more sharply defined than in climbing, and they are easily classified as (1) avoidable and (2) unavoidable.

Fortunately the latter are very restricted in number, and consist of only two kinds, namely, the dangers of sudden weather changes and those of falling stones or ice. However, foresight and prudence can do much to negative the risks of

encountering either of these. Bad weather at loftier altitudes often comes with what has been described as startling suddenness; but almost invariably the watchful climber can discern evidences of its approach. The man who makes it a hard-and-fast rule to climb only in absolutely settled weather will have little to fear in this respect.

It may be remarked that as long as the wind blows from a northerly or easterly quarter, or from any point between these two, any sudden changes that occur are scarcely likely to prove serious. If the range of vision permits, the mountaineer should keep a constant look out in a southerly direction and note the on-road of clouds from that point. It should also be noted that the only way to correctly gauge the direction of the wind in higher altitudes is to judge by the direction of the movement of the clouds, and the higher of which generally denote the kind of weather that will be experienced a few hours later. A red or orange-yellow sunrise with a few hard greenish-coloured clouds streaked to the south-east across an otherwise clear sky may be considered a distinctly unfavourable sign. Cirrus will probably begin to form from west to east within an hour or two, and if so, bad weather may be expected soon after midday. Low, heavy, conical, cumulus clouds rising against the general direction of the wind, are likely to result in storm, and possibly, thunder.

Personally, whenever the mountain becomes shrouded in heavy clouds blowing from the south-west, I should advise immediate retreat valley-wards.

Despite every precaution most climbers are overtaken by bad weather at some time during their career. In such a case it is better to continue moving slowly downward than to attempt to find shelter, for Alpine storms are scarcely ever of the April-shower variety. As long as the party can do this, the exercise of their limbs and of their powers of observation will prevent much danger from cold.

If they should have been caught high up on one of the greater peaks, they may be unable to find the way down before nightfall. Now comes the real danger, for the extra exertion, mental and physical, will have lowered their vitality, and the hours of inaction may lead to collapse through exposure and

exhaustion, or, even if they survive through the night, frost-bite may play sad havoc with the party.

On a rock-peak, when the chances of getting down seem hopeless, and the route is impossible by lantern-light under such conditions, it is wiser to make sure of a comparatively sheltered resting-place than to persist to the very approach of darkness, with the risk of having to spend the night on some exposed ledge.

A good-spirited party of strong men, with a wide repertoire of songs and some reserve of food at their disposal, can come safely out of such an experience if fair protection can be found from the wind; and whatever happens despair should be banished from the thoughts of benighted climbers.

On a snow mountain a hole can easily be dug in the snow-field, or a shallow crevasse may afford shelter until the descent can be continued. In either of these cases artificial stimulants should be rigorously avoided, except in extremity. Of course, all the available warm clothing would be brought into use, and it must not be forgotten that a waterproof rucksack will act somewhat like a bed-bottle in keeping the feet warm. Sometimes two climbers can get their feet into one sack, especially if the stockings are dry enough to make the removal of the boots advisable, and if the mouth of the receptacle is then tied up as closely as possible the warmth generated will prove remarkable.

The risk of bad weather during any lengthy expedition would prompt the suggestion that a party should always carry an ample reserve of food in case of an extra day's detention on their peak.

In case of frost-bite, which is most likely to attack some of the extremities, it should be understood that the circulation of the affected part must be restored as slowly as possible, and without artificial warmth. To this end continuous but not too energetic friction with snow is the best remedy, and the greater pain this process induces the better the chances of recovery.

In bad cases the part of the body affected loses all feeling and becomes pallid in colour. These demand medical attention at the very earliest possible moment, but, until this is available, the rubbing with snow or even cold water should be persisted in when feasible.

Dipping the fingers in boiling glue has saved the digits of some well-known climbers, and as in the extreme cases which require such treatment, all sensation has left the affected parts, the operation is not at the time painful.

Thunderstorms in the Alps are generally more appalling than dangerous. Most experienced Alpinists have at some time seen the peak they are on practically ablaze with lightning. Some may have been clinging to its sides when the electric fluid has seemed to pervade the whole atmosphere and glide in a peculiarly shimmering, fiery stream down the steep rock slabs.

This was once my own experience on the Unter Gabelhorn, and its many unnerving features are worth noting, because they may serve to reassure others who are caught in a like predicament. It had been beautiful weather for the ascent, but when we had descended nearly as far as the *col* below the Summit on the Eastern ridge, the clouds that had slowly been gathering like a pall suddenly began to spin round the peak somewhat like a whirlwind. Almost at the same moment a shrieking northerly gust brought along a stinging shower of hailstones, followed by strangely vivid flashes of lightning; so we made all possible haste to scramble down the easy rocks leading to the *col*. In a few minutes the wind dropped, and the first peculiarity I noticed was a tingling sensation in the tips of my fingers whenever they grasped or released a handhold. One of my companions was hatless and his hair had assumed such an upright, bristly appearance as to lead to jocular remarks. These latter were of short duration, for we began to realise that we were all more or less alike, and simply charged with electricity, which was silently discharging from our finger ends. Our ice-axes began to give off sparks that would have roused the envy of the electrically-belated motorist.

Before we gained the shelter of the *col* a vivid flash of lightning spluttered on the opposite rocks, and the whole mountain seemed to vibrate with the simultaneous thunder crash. Instinctively we looked upwards for falling stones, for we feared the upper rocks would come tumbling about our ears, but nothing fell in our direction. A few seconds later there was a still brighter flash, and at the same time I felt an

electrical shock in my arm which held the ice-axe. My companions suffered likewise; so, as we were now only a few feet above the *col*, we dropped our axes, for they were evidently a source of danger. When we reached the neighbourhood of the axes some rocks afforded partial shelter whilst the electrical disturbances continued, and dense black clouds rolled across heavily laden with fine powdery snow. All the time a strange fizzling noise appeared to flit here and there amongst the rocks, but there was an entire absence of sulphurous smell or falling rocks, both of which have been noted by other parties in a like situation. Gradually the space of time between the lightning and the thunder-crash grew appreciable, and we had a fierce repetition of the hail-storm for several minutes. Then the storm began to subside, and in half an hour we were able to breathe more freely, and enjoy the prospect as the mist rolled up, disclosing the sun-lit valley below.

An eminent authority has urged that the dangers of thunderstorms in the Alps are much over-rated, and has said that "though very impressive and dramatic there is nothing very terrible in a thunderstorm in the high regions." Yet I cannot help thinking that we were in the gravest danger that day on the Unter Gabelhorn, and many others who have endured a like or even a worse experience will readily agree.

Certainly there have been very few fatalities in the higher Alps due to this cause, in fact the only one I can recall to memory is that which happened on the summit of the Wetterhorn in 1903. In that case the whole party, consisting of two Englishmen and two guides, perished; but it should be noted that the weather was very unsettled at the time and the ascent scarcely justifiable.

In dealing with the other cause of unavoidable Alpine dangers, namely, falling stones or ice, it must be understood that avalanches and other large falling masses, such as portions of cornices, are not included. The courses of avalanches are well-known and easily located; and the man who walks under an overhanging cornice or mass of ice, especially when the sun shines on it, is certainly courting avoidable risks. The really unavoidable danger is that which arises from comparatively small stones, rocks, or pieces of ice that become detached from



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CROSSING THE ICE COULOIR ON THE SCHRECKHORN
FALLING STONES MAKE THIS PLACE DANGEROUS AFTER MID-DAY

the mountain side and fall most unexpectedly. They may be loosened by the action of frost followed by the warm rays of the sun or by a sudden change to a warm wind, by a high gale blowing up above, by another party on the mountain, or by a variety of smaller causes, such as the passage of chamois or other creatures that haunt the higher regions, amongst whom the superstitious guides would probably class *geister*. However, falling stones scarcely begin their vagaries seriously until about mid-day, and places that are quite safe in the early morning often become veritable death-traps in the afternoon. Thus mountaineers attacking a mountain that is at all risky in this respect should start very early in the morning, as soon after midnight as possible, and get down out of the danger zone early in the day.

Two places famous in this respect are the Great Stone Couloir on the Hörnli way up the Matterhorn, and the Great Couloir on the Wetterhorn. These, being on popular peaks, are visited to a large extent by unskilled mountain travellers; belated parties are numerous, and so each season cracked skulls and broken limbs abound proportionately.

When two or more parties are to be on these or other similar mountains at the same time, a distinct understanding should be arrived at before leaving the hut in the morning. In some cases it may be preferable for the parties to descend *en masse*, and in others it may be possible to escape all danger by the quickest climbers going first and getting out of range before the others are in a position to send loose matter down their route.

Large rocks, by reason of their weight, often become arrested by tumbling into soft snow; but, on the other hand, if there are rocky slabs in the line of descent the falling mass will probably start several others, until quite a miniature avalanche comes crashing downwards. The old advice to keep cool is difficult to follow in such cases; it is more a question of trusting in Providence. Single, large stones may be skilfully dodged sometimes; but some of the small fragments come so swiftly as to be invisible, though the whizzing they make has been aptly likened to the song of a Mauser bullet.

It might be supposed that a large number of serious accidents would occur through these falling masses, but in

reality they are extremely rare, and, personally, I have never once been struck, nor have any companions been seriously hurt. At the same time it is true that there have been exciting escapes, which will be mentioned in succeeding chapters.

Many of the avoidable dangers have already been dealt with, but some demand further enlargement and others require attention. Judged by the number of fatalities that occur, it might be fairly assumed that the easiest parts of a mountain are most dangerous, though the statement may seem somewhat of a paradox. Nevertheless it is a strange fact that accidents constantly happen to expert parties after they have finished the difficult part of the peak. After a hard struggle on the upper crags human nature seems very apt to treat the less impressive and more easily inclined lower slabs with disrespect. This is one of the most insidious of the avoidable dangers, as has been proved many times, and those familiar with Alpine literature realise the fact.

Emile Rey, who was probably the finest guide that ever lived, fell a victim to this tendency when he perished on the Aiguille du Géant in 1895. In mountaineering more than in any other sport it is the unexpected that happens, and momentary carelessness may have regrettable results even on places that appear of the simplest kind.

The practical application of common-sense and prudence, even despite restricted experience, will go a long way in removing the avoidable dangers. It may take more courage to turn back in the face of considerable difficulty and risk than to attempt rashly and imprudently to reach the summit. The fact that someone else has been successful may act as a spur, but it must not be forgotten that varying conditions considerably alter the difficulties, and above all the spirit of rivalry must have no place in the mountaineer's character. Novices especially are often prone to under-rate the risks they have taken, and the records of their achievements may be misleading.

This reminds one of an amusing entry in the visitors' book at a well-known climbing centre. "Ascended the Pillar Rock in three hours, and found the rocks very easy." This was probably written by a young climber with more self-assurance than experience. The entry immediately below this is written

by a well-known Cambridge don, who adds: "Descended the Pillar Rock in three seconds, and found the rocks very hard."

Returning to the more tangible dangers of an average Alpine ascent, it should be noted that there is no more fruitful source of catastrophe than that of climbing alone, or of two persons attempting a difficult or even ordinary snow expedition. The former is so illogically and absolutely unjustifiable as to require scant notice here, but the latter might require some further explanation.

That greatest of mountaineers, the late A. F. Mummery, whose memory we all reverence, has treated this matter somewhat disparagingly. He asked whether he and another climber equally skilful must, in order to cross some remote snow pass, rope themselves to some totally incapable Swiss peasant to secure their safety. Such experts may be able to break the laws, just as in cricket great batsmen can defy the theory of playing with a "straight bat," but the results of unexpected failure are widely less momentous in the latter sport.

Crevassed snow-fields are oft-times deceptive, even to the most experienced, and it should be an unalterable law that a party of less than three climbers should never cross such places. Should one of a party of two travellers fall through a snow bridge, it is impossible for his companion to pull him out unless they are specially prepared with a spare rope, as suggested in a former section, but such parties are those who never think of carrying such an extra.

Three or four years ago, below the Col du Géant, two brothers were lost in this manner; and from markings on the snow it was found afterwards that the elder brother had bravely attempted to rescue the younger. He had held on for many hours; but at last, refusing to sever the rope, he was dragged to his doom in the depths of the crevasse. By a strange irony of fate, about half an hour later another party discovered the writing in the snow which the last to fall had left, and they did all that was possible under the circumstances.

Several accidents of a like nature have happened, though not many of them so fatal, and the question as to whether the rope should or should not be cut by the upper man has aroused some discussion. I am loth to express an opinion, but cannot help thinking that if two climbers are foolish enough to allow

themselves to get into such a predicament it would be a pity to cut the rope in order to allow one of them the chance of repeating his error.

Sometimes these accidents prove more amusing than tragic. For instance, in 1904 two tourists who were exploring the ice-fall on the Gorner Glacier above Zermatt, fell into one of the indefinite crevasses on the side of this glacier. Strangely enough one fell to the bottom without serious damage, and, after loosing the rope, he was surprised to find that he could practically walk out from the bed of the glacier across fallen débris and on to the mountain side. From thence, after making unsuccessful calls to his friend, he hurried down towards Zermatt for a party to rescue his companion's body. Meanwhile the supposed victim was on the same errand on his behalf; for the upper climber had fallen a comparatively small distance upon a snowy ledge and, though slightly dazed and much bruised, he was able to scramble back into a place of safety. Needless to say there was an exciting scene at Zermatt when the hero from the bottom of the crevasse met the search-party with all the paraphernalia for the recovery and transport of his remains.

It has been stated that three fine days at least should be allowed to pass before any of the greater peaks are attempted after a spell of bad weather. The temptation often proves too much for many climbers, specially if their holiday is drawing to a close. If this time limit is not allowed, and even if it is in some cases, many of the snow couloirs will be in a dangerous condition. The hard, icy snow, which often might really be called ice, will be covered with a more or less thick layer of new snow. This may apparently prove quite safe in the ascent, but in the afternoon it may have a tendency to slide bodily off its slippery, retaining bed. It will probably start as a small harmless-looking mass, which glides slowly off the icy slope and gently carries the climbers off their feet. At first the affair may perhaps be treated as a joke, but the augmenting mass will soon become irresistible, and hurl the party downwards, perhaps into some stifling crevasse to perish unseen until future generations gaze on their remains disgorged from the far-distant terminal glacier. This, however, is an extreme case, and it often happens that the party are carried easily



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ON THE TOP OF THE LYSKAMM - THE MATTERHORN AND DENT-BLANCHE BEYOND

down until the bed of the couloir assumes a gentler slope and they are thus brought to a standstill. In each event, whether serious or otherwise, it is advisable to keep on the surface of the snow by spreading the limbs somewhat, as in the act of swimming by means of the breast-stroke.

The rope, on account of its jerking action and the entanglements that ensue, is a serious drawback, but if some of the climbers get buried in the fallen snow and partially suffocated, the rope will point out their situation to the others, and thus facilitate the rescue.

Some of these steep, snow-covered, ice couloirs or slopes are obviously dangerous, but when in doubt it is a good plan to test their condition by hurling large pieces of rock on their surface. If this sets the snowy mass in motion the risk is apparent; and, if no other route is available, steps must be cut through the snow to the ice, but the clearing process is a lengthy and laborious one. If a mountain manifests these conditions, during the ascent in the early morning, the attempt should not be persisted in unless an alternative route is available for the descent.

Whenever the summit ridge of a mountain is gained by snow couloirs or slopes it should always be assumed that a cornice overhangs the side opposite to the point of arrival. The leader should be sent over to test for its presence, whilst his companions meanwhile secure his safety by holding the rope from some way down the slope up which they have come.

Cornices of varying sizes are usually present on the higher peaks, and extremely good judgment is required to ascertain how far they can be trusted. Of course it is best to keep at a respectful distance, but the varying curvature of the ridge is misleading, and this may cause a party to walk innocently on the overhanging portion, and one or more of them may suddenly break through the cornice. The rope, of course, saves the situation in such a case; still, a friend of mine who had such a mishap on the Lyskamm said it was the biggest fright he had ever had. He suddenly collapsed through the cornice, and, looking down through the hole thus formed, he had time to see the chalets and green pastures in the valley some thousands of feet below before being jerked out by the rope.

The Lyskamm is considered the most dangerous peak in

the Alps in this respect, and several parties have been lost through large masses of the huge cornices breaking off during their progress over them. As far as this mountain is concerned the cornices may be regarded as an unavoidable danger, for the actual summit is, under normal conditions, unattainable without treading these unsatisfactory obstacles (see illustration, p. 121).

On other peaks where the final ridge is composed of mixed rock and snow, the comparatively short stretches of snow that connect the gendarmes are often heavily corniced in a deceptive manner.

Such places may mislead the most careful, and Alpine records contain many accounts of wonderful escapes on such places.

One of the most striking of these was that of a party near the top of the Ober Gabelhorn above Zermatt. A cornice broke away with them in a most unexpected fashion, and they were only saved by the wonderful presence of mind of one of the guides. He threw himself instantly down the slope on the side opposite to the breaking cornice, and the fall was prevented by the rope, which became stretched across the crest of the ridge. It was a brilliant example of doing the right thing at the right moment; and though, if proper care had been taken the act would not have been necessary, it shows how easily a desperate situation may be saved. The hero of the adventure was rewarded by the gift of a cow, which would prove a more acceptable gift in this case than a crate of the finest champagne. Ulrich Almer was the name of the guide, and in later life he proved to be one of the finest and most reliable of guides.

Another insidious danger, which, sad to say, has grown more serious during recent years, lurks on Alpine summits, and the danger increases according to the difficulty of the climb overcome. There is no such word as teetotalism or its equivalent in the vocabulary of the average professional mountaineer, and it is advisable that the brandy flask, etc., should be in charge of the amateur of a party.

The late Sir Leslie Stephen, who was one of the most capable of mountaineers, has stated in his famous classic, *The Playground of Europe*, that "there is no mountain in the Alps which may not be climbed by a party of practised

mountaineers with good guides in fine weather and under favourable conditions of the snow with perfect safety."

In the early days of mountaineering the same authority and others urged that a code of rules should be made that would make mountaineering "a reputable pursuit for sensible men." I am not aware that this idea was ever fully carried out, but perhaps no more fitting conclusion could be devised for this present section, which deals with the technical side of the sport. This will be a résumé of the principles laid down in previous chapters, and, though not intended for the experienced climber, it is hoped that it may prove useful to the ever-increasing numbers of men who are just beginning to appreciate the joys of the most fascinating of sports.

RULES FOR MOUNTAINEERING

1. Start climbing on British mountains; learn to walk slowly up hill; how to find the route by map and compass in misty and stormy weather; but do not attempt any of the more difficult rock-climbs, as their standard of difficulty is extremely high.

2. Let every article of equipment be of the best and most suitable quality, and pay constant attention to the condition of the boots, more especially their nails.

3. Always begin a climbing holiday gently, start on easy courses after a few training walks, and do not be tempted by good weather or enthusiastic companions to attempt a long or difficult expedition before these preparations have been gone through.

4. Procure the very best guiding assistance available, and if possible obtain the advice of an experienced mountaineer on these matters.

5. Do not undertake a serious expedition with untried companions.

6. Never attempt a high mountain when it is out of condition; three days should be allowed after stormy weather before such an expedition is made.

7. Do not climb in bad weather, and if a storm should arise during an ascent turn back at once if the slightest doubt should exist.

8. Always be clothed to withstand the coldest temperature that is likely to be encountered.

9. Sufficient food should be taken up the peaks to satisfy the wants of the party if they should have to spend the night out through bad weather or any mishap.

10. Start in good time in the morning from the hut, and allow at least an hour from the time of waking until the actual getting under way?

11. On account of a hurried early morning start do not forget goggles, puttees, and other details of equipment; these indispensable articles should be put ready the previous night.

12. Do not delay the putting on of the rope. If any part should prove dangerous, even though merely steep, grass slopes, no hesitation should be made in immediately demanding the use of the rope.

13. Never climb alone, or less than three men on a rope, if any snow-work is to be negotiated; hold the rope firmly, but do not jerk it in any situation.

14. Let the best man lead going up, and in the descent take the last place on the rope; in all questions the leader's decision should be final.

15. If a slip on the part of any member of the party would prove dangerous, only one climber should move at a time, and the rope should be anchored around any available belaying-pin.

16. If a place should be encountered where a slip on the part of any one climber would be certain to precipitate the whole party the route should immediately be forsaken.

17. Do not pass underneath or over cornices, below séracs or hanging glaciers, nor cross slopes of snow that are swept by avalanches. Avoid all couloirs that are notorious for falling stones, either through natural weathering or the presence of other parties up above.

18. The spirit of rivalry in any form should never enter into mountaineering expeditions, and loose stones should never be upset or set in motion when there is the slightest likelihood of damaging other parties on the same mountain.

19. Never glissade down a slope of any length unless you have ascended it less than three hours previously.

20. Eat and drink as much as possible, but specially avoid contaminated water, whether from glaciers or otherwise.

21. Always climb slowly, deliberately, and carefully; a slip, even when harmless, is something to be ashamed of.

This may appear a formidable list of rules to retain in memory, but it should be remembered that they are for the most part simply the application of plain common-sense, and their practice in many cases will soon become instinctive.

The dangers of mountaineering fade into insignificance before its joys and pleasures, just as the fleecy sun-bathed mist disappears at dawn from the snow-capped summit of the Matterhorn. Tennyson has caught a gleam of this in the words:

“The joy of life in steepness overcome
And victories of ascent, and looking down
On all that had looked down on us, and joy
In breathing nearer heaven.”

PART II

CLIMBING AT HOME

CHAPTER X

THE STORY OF MOUNTAINEERING IN ENGLAND

“ Hills draw like heaven,
And stronger sometimes, holding out their hands
To pull you from the vile flats up to them.”

ALMOST from time immemorial the lovely dales and mountains of Cumberland have formed the burthen of the poet's song. Thus it is that probably the earliest mention of any real mountaineering ascent being made in Cumberland is in the preface to one of Wordsworth's poems; therein the Lakeland laureate refers to the ascent of the Pillar Rock in Ennerdale in the year 1826. Of course the old guide-books and other kindred literary efforts contained several earlier references to mountain walks of the ordinary kind.

Towards the latter end of the eighteenth century many amusing descriptions appeared in print of ascents of Saddleback, Skiddaw, Helvellyn, and neighbouring peaks.

In the *Beauties of England* there is an exhaustive account of a walk up Saddleback in 1793, and the following quotation shows that in those days the charms of mountaineering were but imperfectly understood. The writer said: “When we had ascended about a mile one of the party, on looking round, was so astonished with the different appearance of objects in the valley so far beneath us that he declined proceeding. We had not gone much farther till the other companion was suddenly taken ill and wished to lose blood and return.”

In those days Skiddaw and Helvellyn were considered almost inaccessible.

Mrs. Radcliffe in 1795 described the way up Skiddaw as "dreadfully sublime," and wrote: "The air became almost too thin to breathe." Times have changed since then, and nowadays we read from a local poet:

"Laal brag it is for any man
To clim oop Skidder side,
Auld wives and bairns on jackasses
To tippy twop may ride."

Helvellyn was Wordsworth's favourite mountain, and he often "climbed the brow of the mighty Helvellyn" with Scott, Coleridge, and De Quincey to "scatter the cobwebs of the brain." Neither was the poet-laureate unfamiliar with the region of Scawfell.

"He had been alone
Amid the heart of many thousand mists
That came to him and left him on the heights."

He also bequeathed to us a wonderful description of a view from Scawfell Top when he speaks of looking into the "Den of Wastdale, at our feet, a gulf immeasurable, and Skiddaw with his double-fronted head in higher clouds."

But the earlier guide-book writers had other ideas of the Lakeland mountains, and Gilpin, the earliest of these, is continually quoted by the poet Gray. When driving through the mountain valleys Gilpin used to draw down the blinds of his carriage windows, and in one place he describes Derwent-water as "lying in the lap of horror, for can you imagine anything more horrible than the mountains or more beautiful than the lake."

The beginning of the nineteenth century saw almost all these extravagant fears dispelled, and the reputed inaccessibility of the now famous Pillar Rock probably accounted for the making of many of the early mountaineers.

Numerous unsuccessful attempts were made in almost all directions before a native of Ennerdale called Atkinson, a cooper by trade, climbed the rock in 1826 from the west side. From that year until between 1860 and 1870 scarcely any climbing of importance is recorded, though a select few, principally local shepherds, had "done" the Pillar Rock and explored the easier rocks on Scawfell and Great Gable.

About this time a few parties of experienced climbers were first attracted to the Cumberland mountains. Wastdale Head was quickly recognised as an ideal centre from which to attack the more interesting peaks, and the comfortable little inn there has always been a favourite climbing resort. The inn stands at the head of the Vale of Wastdale, which is undoubtedly the finest mountain valley in England. Round its head are symmetrically grouped the highest of English mountains, Scawfell Pike, and its neighbour of more striking aspect, Scawfell, Great End, Great Gable, and the Pillar. The lower heights of Buckbarrow, Yewbarrow, Kirkfell, Lingmell, and the Screes form stately buttresses which plunge straight down to the valley on all sides. The gloomy lake of Wastwater fills in the lower part of the dale, and there are few, if any, such impressive scenes in Britain as this lonely lake with the huge, rocky escarpments of the Screes rising almost sheer from the water's edge, and continuing as steeply down into the black depths of the lake.

The comparative size of this grand precipice of the Screes can be partly realised if it is remembered that a few years ago a great mass of rock, at a low computation as big as St. Paul's Cathedral, broke away from the mountain and crashed down to the lake's bottom without apparently altering the shape of the mountain from whence it came.

True it is that the inhabitants of Wastdale were much disturbed by the deafening noise, and the undue agitation of the lake's surface caused by a tremendous "tidal wave," for they decided that the day of judgment had arrived, and a special service in the diminutive church was arranged for, but not found necessary.

The story of Cumberland mountaineering is so connected with the fascinating vale of Wastdale, that the history of the one is almost the history of the other.

Reverting to the earlier mountaineering days, mention must be made of Auld Will Ritson, who "reigned" at the Wastdale Inn during the greater part of the nineteenth century. Auld Will used to tell interesting anecdotes of famous men who visited Wastdale, for he had wandered many a day with Professor Wilson, Wordsworth, De Quincey, and others.

Another noted character in the hamlet was the Rev.



WASTDALE HEAD AND GREAT GABLE

THE MOST FAMOUS AND POPULAR CLIMBING CENTRE IN GREAT BRITAIN

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George Pigott, who used to preach when sober in his red stockings and clogs. Visitors to Wastdale seldom heard a sermon from the parson in those days, but old Dame Tyson, who lived at Row Head Farm, used to entertain tourists with much useful advice, scriptural and otherwise. The aged lady took a great personal interest in various university reading parties who came and ate her "wonderful puddings and pasties."

Another character in the dale was the postman, who at times drank a little too much, and then would dance for the amusement of those present. Amusing lines are still to be found in the old visitors' books referring to "the mercurial postman, the picturesque priest, and the hospitable host."

Such were the amusements of the earlier mountaineers during the long evenings and in very bad weather, but nevertheless much attention was bestowed on the mountains. The Pillar Rock was the height of the daring climber's ambition in those days; and in the year 1863 a party of Cambridge men, led by Messrs. Conybeare and A. J. Butler, ascended to the top of the rock by a new course entirely on the east side. This is the most popular route, and is nowadays called the "Easy Way," though some slight deviations should be mentioned, which have reduced the difficulties of the original climb.

This is notably the case where the old climb entered the Great Chimney a little way above its difficult section. A rather awkward jump was necessary on to some steep grass, and the "Eight Foot Drop," as this was named, figures largely in some sensational accounts of the original route. In these days there are two entirely different courses at this point. In one case the Great Chimney is scarcely entered at all, but the summit is reached by climbing up its left wall; the other, generally called "Around the Ledge," gains the chimney by an easy traverse slightly lower than the "Eight Foot Drop."

Another route, a circuitous one on the north-east side of the rock, was discovered probably a few years earlier by the old Keswick guide Matthew Barnes with Mr. Graves of Manchester; but this has practically fallen into disuse, and is scarcely known nowadays.

Amongst the best-known climbers of those years was Mr. C. A. O. Baumgartner, who was the fourth amateur to stand on the top of the Pillar Rock, and is probably the oldest survivor of those glorious pioneering days.

In 1865 the late Sir Leslie Stephen climbed the rock after previous failure; but his account has disappeared from the Wastdale Book, and whether he succeeded on the east or west side is not generally known.

About this time the Rev. James Jackson, of Seaton, began to acquire his title of "Patriarch of the Pillarites." He was a remarkable man in many ways, and no story of the Cumberland mountains is complete without a mention of his wonderful personality. When between fifty and sixty years of age he began, as he himself said, "to knock about amang th' fells until I may almost say I know ivery crag." This remark was made in 1876, and he was then eighty years of age, but still his bodily and mental powers were more than equal to those of many climbers of half his age. Truly his favourite description of himself as "senex juvenilis" was most appropriate, and one of his famous rhymes well illustrated this:

"If this in your mind you will fix,
When I make the Pillar my toy,
I was born in 1. 7. 9. 6,
And you'll call me a nimble old boy."

This veritable Patriarch of the Pillarites looked on himself as the "Mountain Monarch," and he always expected climbers to bow before his lightest word. Two well-known experts of those days, the late Mr. Maitland and the late Richard Pendlebury, a senior wrangler, he dubbed respectively "Patriarch Presumptive of the Pillarites" and the "Senior Scrambler." Modern critics might consider him somewhat egotistical and inclined to self-glorification; and this opinion almost seems just when it is known that he only once actually reached the top of the Pillar Rock, and that was in his eightieth year. Another popular mistake is that he lost his life whilst climbing the famous rock in 1878, but this was not the case. When this wonderful old man, eighty-two years of age, was walking alone over the snow near the top of the Pillar Mountain, he slipped, no one can tell from what cause, and

fell over the broken precipices into the wild mountain cove now known as the Great Doup. Fully half a mile from the Pillar Rock, a stone cairn surmounted by a rude iron cross marks the place where his body was found. This has recently been augmented by a simple cross with the initials J. J. on either side carved in the solid rock that rises near the old cairn.

In his excellent little climbing guide, Mr. W. P. Haskett-Smith aptly reviews the sad accident by writing: "We may well believe that had the old man foreseen his fate he would have gladly welcomed it, and have found for it no fitter place among all his beloved mountains than this quiet cove almost within the shadow of the majestic rock."

No organised records had been kept of the Cumberland climbs until the year 1880; about that time the Climber's Book was presented to the Wastwater Hotel, and eventually put under lock and key in order to retain its pages for entries of first and second ascents, or matters of special interest to the climber in contradistinction to the ordinary tourist. From that year onwards ever-increasing numbers of expert climbers have covered the principal crags with a large number of routes and variations.

Of the few actual climbs authentically recorded before that year the most important, besides those on the Pillar Rock, were: the Broad Stand on Scawfell by Mr. C. A. O. Baumgartner about the year 1850, though earlier ascents may possibly have been made; the Scawfell or Mickledoor Chimney, which was climbed by Mr. C. W. Dymond in 1868; and the North Climb on Scawfell in 1869 by Major Cundill.

The original route is still followed up the North Climb, but there are so many possible variations in ascending Scawfell Chimney that it is difficult to discover how it was first climbed; also the topography of the Chimney has been much altered by some falls of rock. The course up and down the Broad Stand is now more used than any other rock climb in Cumberland, but, according to the late Mr. Pendlebury, this has only been negotiated in preference to its next-door neighbour, the Chimney, during comparatively recent years. The Broad Stand was somewhat difficult in its lower part until some overhanging rock was removed by artificial means; according

to the above authority it is feared that some minor blasting operations were resorted to.

That grandest of Lakeland mountains Great Gable seems to have been reserved for ordinary pedestrians until about the year 1882, when Mr. W. P. Haskett-Smith, with the true eye of the expert mountaineer, recognised its attractions.

That year saw the beginning of a systematic attack on the crags and rock-buttresses of Cumberland by most of the expert climbers of modern years. This inroad on our English mountains was almost synchronous with the complete conquest of all the great peaks in the European Playground ; and, even there, men had already begun to make variations by attacking the subsidiary ridges where severe rock-climbing was generally encountered.

As a result, rocks superseded snow in mountaineering favour, and peaks formerly very popular became less frequented. It soon became evident that the best rock climbs were not necessarily on the biggest mountains, but that they might be found even amongst the previously almost neglected fells of the English Lakeland.

The names of two great cragsmen, the late Owen Glynne Jones and Mr. W. P. Haskett-Smith, are ineffaceably connected with Cumbrian mountaineering of recent times. A reverent tribute of praise and admiration must be tendered to the memory of Owen Glynne Jones. Truly he was the greatest rock-climber of modern years, at least so far as British peaks are concerned, and the greater part of his short but brilliant life's work, even life itself, was sacrificed to the noble sport of mountaineering. Scarcely eight years have passed since his valuable life was brought to a close by the terrible Alpine accident on the Dent Blanche, when three Swiss guides perished with him through a fatal slip on the part of the leading guide. As a climber he was unique, and many years must elapse ere another can hope to fill his place worthily. As a friend, under all circumstances, he was always to be depended upon, for the weakest and heaviest members in every party were generally his special care, and many will never forget his true unselfishness and the kindly way in which personal blunders were criticised. Whether the party was struggling up a waterfall, or resting, shivering and wet, under



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SCAWFELL PINNACLE FROM THE HEAD OF DEEP GHYLL

PISGAH IS CONSPICUOUS ON THE RIGHT, WITH JORDAN GAP BELOW, AND THE PROFESSOR'S CHIMNEY LEADING THITHER FROM DEEP GHYLL.

a huge chock-stone, or clinging desperately to a wind-swept ridge or icy couloir, all felt happy with Owen Glynne Jones as their leader. His well-known book, *Rock-Climbing in the English Lake District*, published in the year 1897, gave a tremendous fillip to the "home industry," and its success necessitated the appearance of an enlarged edition in 1901.

Mr. W. P. Haskett-Smith was the leading pioneer on the Cumberland mountains, and several of the most popular climbs were discovered by parties under his guidance. His first ascent of the now famous Napes Needle on Great Gable in 1886 will rank as one of the most daring and skilful climbing feats ever undertaken in the district. At the same time it is well to remember that his first conquest of the north face of the Pillar Rock in 1891 with Messrs. Slingsby and Hastings was a sounder and finer performance from a mountaineering point of view.

Whilst dealing with some of the most remarkable successes on Cumbrian crags, special mention should be made of the ascent of the Eagle's Nest Ridge in 1892 by a party led by Mr. G. A. Solly. This climb and those led by Mr. Owen Glynne Jones up Scawfell Pinnacle (direct), the C. Gully on the Screes, and Walker's Gully on the Pillar Rock, rank amongst the most difficult climbs in Great Britain.

Referring to a few of the favourite present-day courses, it may be interesting to note that the first ascent of Scawfell Pinnacle, by way of Steep Ghyll and Slingsby's Chimney, was made in 1884 with Mr. Haskett-Smith leading, and the direct climb of Moss Ghyll under the leadership of the late Joseph Collier, was not completed until eight years after.

On Great Gable the discovery of Kern Knotts Chimney in 1893, and the conquest of the famous "Crack" three years later by O. G. Jones, are notable landmarks in Cumbrian climbing history, whilst the writer's New Direct Route up the west side of the Pillar Rock in 1901 has shown that reasonable new climbs may still exist, even on this much explored mountain.

The success of a party led by Mr. F. W. Botterill up the north-west side of the famous rock in 1906 demands attention as a remarkable performance, but the route is much too difficult to become either useful or popular. This and the direct

ascent of Scawfell Pinnacle should be classed *sui generis*. They are not justifiable without careful exploration and preparation; the latter might well include a strong gymnasium net fixed below the steepest portion.

The question is often asked, "How do the English climbs compare with those in Switzerland?" It is no exaggeration to say that none of the ordinary Alpine peaks possess technical difficulties at all equal to or comparable with several of the above climbs. Many of the "everyday" courses on Scawfell, Great Gable, and the Pillar Rock would almost come in the same category. Taking this standard of difficulty into consideration, it is a remarkable fact that so few fatal climbing accidents have up to the present time happened to any party whilst roped together and actually engaged on an English climb. In fact, the only accident of this kind that has yet befallen a real party of mountaineers was the terrible catastrophe of 21st September 1903, which led to the loss of four valuable lives. On that day R. W. Broadrick, A. E. W. Garrett, H. L. Jupp, and S. Ridsdale attempted the ascent of Scawfell Pinnacle direct from Lord's Rake by way of Hopkinson's Cairn.

The lower and greater part of the route had been previously made by O. G. Jones, and this portion was safely negotiated. But at the point where his route began to diverge to the left, in order to reach the ordinary way up the Pinnacle by Slingsby's Chimney, the ill-fated party passed to the right, and attempted to reach the cairn built by Messrs. Hopkinson when they explored the face from above in 1893. This cairn had never been reached from below, and though only about 30 feet of rock now separated them from the goal of their ambition, its attack proved their undoing. What happened will never be known exactly, but from the marks on the rocks and a few last words spoken by Mr. Ridsdale, it is possible to form a fair deduction of the events.

Mr. Broadrick had led up to the last difficult stretch, and, after a fruitless attempt to climb this, he grew tired, and took second place on the rope. Mr. Garrett then essayed the ascent, and when about 15 feet above his companions, who were on a very narrow ledge below and slightly to the left, he slipped and fell. The rocks thereabouts are so smooth

that no belaying-pin was available for the rope at any point, so that one by one his companions were torn from their insufficient holds and precipitated down those terrible crags into the lower part of Lord's Rake. The lesson is obvious. Warnings have been given elsewhere, and though there are perhaps signs of a growing disregard of them, the bulk of climbers will appreciate the advice that the face of Scawfell Pinnacle should at present be left severely alone.

The death of Professor Milnes Marshall on 31st December 1893 can scarcely be called a climbing accident. The party to which he belonged had ascended Scawfell Pinnacle by the longer route up Steep Ghyll and Slingsby's Chimney. They had then descended the mountain, unroped, by way of Lord's Rake, to the foot of Deep Ghyll, and at this point Professor Marshall left his companions. He then scrambled up some perfectly easy ground, a mixture of loose grass and rock, on the right side (looking up) of Lord's Rake, with the intention of finding a suitable standpoint for securing a photograph of the lower part of Deep Ghyll. Almost immediately afterwards his friends heard a noise of falling stones, and saw first a large stone about 2 feet by 1 foot in size, tumbling down broken ground, followed quite closely by the body of Professor Marshall. No one saw the actual accident, but it is generally supposed that the piece of rock fell on the unfortunate climber, thus knocking him backwards.

The only other accidents worth recording here are those which resulted in the loss of the Rev. W. A. Pope on Great Gable in 1882; of young Mr. Walker, who slid down the hard snow on the Pillar Mountain during the Easter of 1883, and fell over the chasm now known as Walker's Gully; and Mr. Haarbleicher, who was killed near the Broad Stand on Scawfell in 1893.

There is no need to give further details of these three latter deplorable accidents, for they were not connected with mountaineering in the true sense of the word, but passing mention may be made of the loss of Alexander Goodall in Deep Ghyll on Scawfell at Christmas 1904.

With a companion he had climbed Scawfell Pinnacle from Steep Ghyll, and as a means of descent, for some inexplicable reason, he chose to glissade down the ice- and snow-filled

interior of Deep Ghyll, after unroping from his friend. Being without previous experience of snow-climbing or knowledge of the topography of Deep Ghyll, though a splendid rock-climber pure and simple, he was unaware that such a procedure would be certain to have a fatal termination. Once started down that merciless slope the case was hopeless, and thus was added another victim to the toll of the mountains.

However, despite the increase in the popularity of mountaineering, the number of accidents amongst real climbers, as distinguished from ordinary tourists, shows a tendency to decrease, and all lovers of our sport should see that no act or injudicious advice on their part is likely to bring the noblest of sports into disrepute.

It will now be readily understood that the standard of difficulty amongst the Cumberland climbs is an exceedingly high one. This is a natural result of the careful search by the leading Alpine experts of the present time for new climbs of steadily increasing severity. This search has gone on systematically since the year 1882, and nowadays it is extremely difficult to find a new, feasible route on any of the bigger crags.

Variations of some of the present ones are possible in a few cases, but most climbing parties appear satisfied to follow in the footsteps of their predecessors; and, considering the variety and number of available climbs, the lack of further variations is, as a rule, an advantage, thus saving confusion in classifying the climbs.

In recent times winter mountaineering has become popular amongst the hardier and more enthusiastic cragsmen. It is no unusual thing to find between thirty and forty of these "insatiables" foregathered at Wastdale Head for the Christmas vacation. The only real drawback to climbing at this season of the year is the shortness of the days, but few of the ascents are too long for even the shortest of these.

Still the records show that an experienced party was benighted not very long ago on the North Face of the Pillar Rock, and heard the church bells in some far-off valley proclaiming the dawn of another year. Luckily the weather was perfect, otherwise the escapade probably would have ended differently, and, as they narrowly missed a second night out, none of the party are likely to forget that New Year's Eve

spent half-way up the Pillar Rock. Some climbers who afterwards visited the narrow rock-recess, where they passed the night, amusingly remarked that the last extremity of hunger had scarcely been reached, for two pieces of candle had been left behind by the benighted ones.

Of late years some attention has been given to making records in ordinary fell walking, and the idea seems to have been originated by the Rev. J. M. Elliott who made a round of the fells about Wastdale in the early sixties.

More recently the "Four Peak Record," by which was meant the ascent of Scawfell Pike, Helvellyn, Saddleback, and Skiddaw in twenty-four hours was looked upon as a prodigious feat.

Various record-breaking performances have been made, notably those by Messrs. Tucker of Windermere and Messrs. Westmoreland of Carlisle, who climbed the seven highest mountains in England within the time limit of twenty-four hours.

The late R. W. Broadrick, as well as a Mr. Johnston of Carlisle, succeeded, during recent years, in improving the record by adding other peaks, but all these have been lately eclipsed by the performance of a well-known mountaineer, Dr. A. W. Wakefield.

On 14th August 1905, he left Keswick at midnight, and after running most of the way along the Newlands Road he reached the top of Robinson at 1.53 a.m. From thence he crossed in turn the summits of Hindscarth, Dale Head, Honister, Brandreth, Green Gable, Great Gable, Kirk Fell, the Pillar, the Steeple, Red Pike, and Yewbarrow. The long descent was then made to Wastdale Head, where a hurried meal was disposed of, and the second stage of the walk begun at 7 a.m. Scawfell cairn was reached at 8.32 a.m., and by 1. p.m. the pedestrian was at Grasmere, after passing successively over the summits of Scawfell Pike, Great End, Hanging Knott, and Bowfell, from whence Langdale was gained by way of "The Band." Fairfield was crossed at 2.48 p.m., whilst Dollywaggon Pike and Helvellyn caused little delay, for Threlkeld was within hail at 6.15 in the evening. A hurried meal prepared the climber for the final stage, and, after the tops of Saddleback and Skiddaw were traversed, Keswick was again

reached at 10.7 p.m., or nearly two hours within the stipulated time.

This, of course, is a stupendous achievement; it involves almost eighty-five miles of arduous travelling over rough country, and the total sum of the heights climbed must be nearly 25,000 feet. Whether such a record is worth the risk of bodily harm which the long strain on the system must be liable to cause, is an open question; however, when a medical expert successfully undertakes the task we must forego criticism.

These feats as well as the conquest of the most difficult rock-climbs in our English mountains are for few men. But those who can find healthy joys amongst the sanctuaries of the hills without overstepping their physical powers, will find abundance of pleasure in a visit to one of the home-land climbing centres. They can temper their expeditions to their powers, and the interest of their achievement will be enhanced by the history and associations of their surroundings.

This is an additional charm and interest possessed to the same extent by no other British mountains; and it will always be pleasing to remember that the Cumbrian crags and cliffs have inspired the enthusiasm and in some degree perfected the craft of many of the greatest modern mountaineers.



Abraham

AN ASCENT OF THE NAPES NEEDLE, GREAT GABLE
THE FIGURES INDICATE THE ROUTE USUALLY FOLLOWED

CHAPTER XI

CLIMBING AT WASTDALE HEAD, GREAT GABLE, AND THE PILLAR ROCK

"Dear is that home to which his soul conforms,
And dear that hill which lifts him to the storms,
And, as a child, when scaring sounds molest
Clings close and closer to a mother's breast,
So the loud torrent and the whirlwind's roar
But bind him to his native mountains more."—GOLDSMITH

NOT many years ago a well-known authority stated that "there is more climbing practised amongst the Cumbrian mountains than in all the rest of Great Britain put together." Doubtless this was true enough at that time, but nowadays it is scarcely so, for the Welsh peaks have asserted their claims, and the Bens and Sgurs of the far north appeal forcibly to those men who yearn for fresh climbs to conquer. This is good in every way, for the Cumbrian climbs were becoming somewhat crowded. Even nowadays at Easter-time climbers foregather in crowds from all parts. The hotel at Wastdale Head is then totally inadequate to accommodate everybody, and the strangest of sleeping quarters are requisitioned; of which more anon.

Let us pay an imaginary visit to the little inn at this time of year, and learn somewhat of the ways of this annual gathering. It may be evening and, as we pass into the historic entrance hall, ice-axes, ropes, rucksacks, and other climbing implements are seen adorning every spare resting-place, whilst a chaos of mountaineering boots covers the floor. Some of their owners are crowding in to "first dinner," whilst others are upstairs waiting patiently for a share in the bath.

A peep into the dining-room will probably reveal to us men famous in almost every walk of life; distinguished medical

men, barristers, 'varsity dons, journalists mix together unreservedly with all sorts and conditions of men. The love of the mountains makes the whole world kin. Conventional attire is, of course, unthought of, most of the diners will be wearing tattered Norfolk jackets, others may be clothed in coarse flannel shirts or loose jerseys, for probably the weather has been wet, or soft snow is in evidence on the heights, and a complete change of raiment is too much of a luxury for the man who has to carry all his luggage in a rucksack.

The odour of drying garments pervades the place, and the strange open-air smell that comes from contact with damp volcanic rocks and rank vegetation, which might aptly be called the "scent of the gully," evidently adds zest to the appetite. The talk at the table is loud and jovial, for the majority in the room have met before, either here, in Wales, or amongst the Alps, and there are many tales to tell and experiences to relate. Meanwhile a climbing chorus sounds from distant rooms, for another thirty or more hungry cragsmen are resignedly awaiting their turn for dinner, and are thus allaying their mountain appetites.

After all have dined on the simple but satisfying fare, the evening passes merrily with many varieties of games, mostly of the gymnastic order, which are, as a rule, performed on the renowned billiard table of ancient construction. On ordinary occasions it is mainly used for billiard fives, but this is almost too dangerous for such a crowded time, as a "crack" on the head from a billiard ball is almost as bad as one from a falling stone.

Sleeping accommodation is naturally at a premium, and those who have to sleep on the billiard table put a stop to the performances at midnight. It may be noticed that those who intend to woo the gentle goddess amongst the hay in the barn are almost the last to retire, and if the tales of rats and other bed-fellows are true, this is scarcely surprising. In any case there is not much advantage in retiring before the early morning hours; at least so said the man who slept in the bath, because someone disturbed his beauty sleep by turning on the cold water about midnight.

Late to bed and early to rise seems to be the motto at Wastdale, and anyone occupying a room within hearing of the

corridors on the first floor will secure scanty repose after 6 a.m.

It is the custom to place all the clothes that have been drying overnight along the upper part of the stair-rail on the lower landing, and the search for one's under-garments amongst such a vast collection is a trying ordeal. Fortunately, lady-climbers are not usually in evidence during the "Easter rush" at Wastdale, but if they are the clothes-hunting operation is a nerve-shaking affair. A thin bed-sheet or table-cloth as an improvised dressing-gown scarcely meets the demands of respectability, and the opening of a door along the corridor usually results in a mad stampede to any available cover.

Breakfast is generally a go-as-you-please meal, and continues for several hours indefinitely, but on a fine morning the hotel will be empty by ten o'clock, and the enthusiasts will be tramping off to the climb of their choice.

Some of the favoured ascents naturally become overcrowded by the presence of several parties, and a certain cragsman has compared such a state of things to the busy city streets. Kern Knotts Chimney is often a fair example of this, and an unexpected jamming of some clumsy climber in the narrow crack stops the traffic lower down. Then, as in our London streets when a similar suspension of traffic occurs, there is a general discharge of expletives along the impatient line, and a hoarse cry of "'Igher up there."

Thus it will be gathered that, excepting for the unique experience, it is not advisable to explore the Cumbrian climbs at Easter. The question of what is the best time to visit Wastdale recalls the advice of that genial-minded traveller and writer Christopher North, who was a keen lover of the mountains. He had a favourite saying, that the best time for a visit to the English Lake District was between 1st January and 31st December.

But the choice of the mountaineer hovers between the spring-time and mid-winter. Personally I prefer the latter, for there is no crush or crowd and then the Lake-land mountains more nearly resemble the Alps than at any other time. The ordinary summer tourist sees nothing of this. How different are those hazy and indistinct mid-summer outlines from the crisp, clear winter prospects when valley and peak are bound in the icy

grip. However, for rock-climbing pure and simple, the months of May and June are best both as regards weather and general conditions, whilst for snow and ice-work the latter half of January and the whole of February are most likely to see the mountains in their most wintry state. This would apply not only to the English mountains, but also to North Wales, Scotland, and Skye, though in the two latter districts the best snow conditions often prevail in the month of March.

Turning to the consideration of the actual climbing, Great Gable is the most conspicuous mountain seen from the front of the hotel, and its fine crags, amongst which are many of the most famous courses, will generally first arrest the climber's attention.

The complicated pile of rocky bastions that stand out on its south-west side overlooking the valley and the Sty Head Pass are known collectively as the Napes. It should be observed that, as we stroll up the pass on the rough pony track below the long *talus* of scree that runs down the face of the Gable, two wide imposing couloirs filled with loose rocks are noticeable objects in the view. These help to elucidate the geography of the mountain. The long grassy slope of Gavel Neese on the left leads up to the various climbs. At the top of this slope there are some conical masses of broken-up crag which are known as the White Napes, and these are divided from the Great Napes, whereon are situated all the real climbs, by the most westerly of the two great couloirs. This is called Little Hell Gate, whilst its more terrific-looking neighbour on the easterly side of the main cliff is honoured with the title of Great Hell Gate.

Still farther to the right of this there are several rocky stretches possessing no definite climbing until we have followed across almost to the top of Sty Head Pass. About three hundred yards slightly to the west of the summit cairn are situated the popular Kern Knotts problems. There is the famous "Crack" which the late Mr. O. G. Jones, its discoverer, recommended as excellent practice for the difficult Mummery Cheminée on the Aiguille de Grépon.

Although the crack splits the great porphyritic slabs from bottom to top, thus affording a continuous route, it should be understood that the lower 15 or 20 feet are not gener-

ally tackled. Loose rocks rather spoil this section, so it is usual to make an upward sloping traverse into the crack arriving just below the curious niche which its discoverer suggested might have been specially prepared to receive a statue (see illustration, p. 53). Thence upward the crack is well defined and almost perpendicular. About 10 feet above the niche it narrows and takes a peculiar twist, to follow which would be beyond the powers of the most skilful contortionist. This is the dangerous part, for the only support, whilst one's body swings out of the crack, is a miniature hand-hold formed by a small stone having become jammed in the front of the crack. It might also be pointed out that this necessary hold is slightly loose. The situation is extremely sensational until the climber can raise his weight safely on this hand-hold, and reach a jutting piece of rock higher up. Above this the fissure widens out, and an expert cragsman who has overcome the lower part will soon wriggle up to the summit.

It may be observed that the Crack really cuts straight through the nose of Kern Knotts, and the opening on the opposite side is the Chimney. This is a much easier course, and one that is familiar to practically all Wastdale climbers. The only awkward part in the Chimney itself is where it is blocked by a chock-stone. This vibrates slightly when used too violently, but I have no hesitation in saying that it is quite safe at the present time. Those who are nervous about utilising this hold too much may be glad to know that the orthodox way of passing this section is to place the back on the right wall and use a sloping hold for the left foot some distance out of the cleft on the opposite wall of the Chimney. A push on this and the use of the chock-stone as hand-hold from the inside will raise the body until hand-holds can be found on the right by turning round and facing the pitch.

Above the chock-stone there is no serious difficulty in clambering up until it is possible to join the exit from the Crack just below a peculiar slab that stands on end upon "The Platform," and leans against the steep rock-face which forms the finish of the climb. Many persons consider this a more trying part than anything lower down in the Chimney, and in windy or wet weather the opinion is undoubtedly sound. It is necessary to mount to the top of the detached slab.

and thence upwards for about 12 feet the hand- and foot-holds are on the diminutive side. In bad weather it is advisable to complete the ascent by working round a corner to the left of this ordinary upper stretch. The rocks thereabouts slope back at an easier angle and the situation is not so exposed.

The Western Crack starts about 60 feet to the left of the foot of the Chimney. The route at first lies up some steep slabs until a narrow right-angled recess is attainable. This possesses an almost level floor, and affords a good starting-point for the "tricky" pitch, about 20 feet in height, which rises steeply above. The place looks really worse than it is, for after the first few feet have been negotiated some deep cracks on the right wall yield splendid hand-holds.

The Great Napes now demand attention, and at the outset it should be explained that there are three main ridges composing the mass, with well-marked gullies between each of these. Approaching the cliffs from Kern Knotts or from the summit of Sty Head Pass, and, by the way, there is nowadays a fair path across the screes available for the observant mountaineer, the first main ridge to be encountered is the Needle Arête. The name doubtless arises from the remarkable pinnacle that stands like a sentinel guarding its approach from below. This is the famous Napes Needle.

The Needle Gully, an easy scramble, divides it from the Eagle's Nest Arête which, with its terrific lower slabs, forms a worthy centre-piece for the Napes.

Then comes the Eagle's Nest Gully, another simple scramble, and west of this rises the Arrowhead Ridge, with the curious rock, from which it has derived its name, adorning its southern crest. Beyond this again the Arrowhead Gully cleaves deeply into the crags, but its internal structure is too rotten to make it a pleasant excursion, and the more shattered rocks that, roughly speaking, form its left retaining wall rise at an easy angle from a grassy ledge whereon stands the Sphinx Rock. This assumes different shapes from varying points of view, and it is sometimes known as The Cat and also as the Bear Rock. Its ascent consists only of a short but severe arm-pull, and a well-known authority has described it as "rather difficult to find if the grass is at all long."

In entering into some minuter details of the various climbs on the Napes, the Arrowhead Ridge and the Eagle's Nest Arête demand special attention. Neither has been deservedly recognised in climbing literature, and this is the more remarkable as the former is one of the most fascinating climbs in Great Britain, and the direct ascent of the latter ranks amongst the three most difficult.

The Arrowhead, as distinguished from the narrow ridge which rises from the gap immediately behind it, can be climbed in two distinct ways. The "easy way" is attained by scrambling up the ill-defined pitch in the lower portion of the Eagle's Nest Gully. The notch behind the Arrowhead can be plainly seen from this point, and it is gained, after traversing out a few feet on the side of the gully, by climbing three rocky steps, each about 15 feet in height. The last few yards that slope up to the ridge are over a smooth, slabby surface, and one or two loose wedges require careful handling.

But the "outside route," as it is called, or the way up the face of the Arrowhead is of a different class, and should not be lightly undertaken, especially when a gale is blowing or icy conditions are prevalent. The route at first does not run actually on the true crest of the shaft of the Arrow, if the simile may be allowed, but up a narrow cleft slightly on the right-hand side. There are three distinct pitches in this section, and though not technically difficult they provide excellent tests of neatness of style.

At the top of these stretches our way is more or less on the outside edge of "the shaft," but the friendly scoop still continues, though as a somewhat narrow overhanging crack. However, it affords the best means of gaining a comparatively comfortable but small ledge about 10 feet higher. At this point there is a magnificent view in every direction. Over 30 feet above our heads on the top of an almost vertical piece of ridge-climbing stands the Arrowhead; behind us there is nothing at all but thin air and then the boulder-strewn face of the mountain over 100 feet sheer below; on the left hand there is the same sudden drop into space, whilst on the right, or the way we are supposed to have come, our narrow standing-place appears to overhang considerably.

Add to this the wonderful view into the distant depths of Wastdale with its rippling lake about 2,000 feet below us, the massive bulwarks of Scawfell at a higher level, and the huge fantastic rocks of the Great Napes that encircle our airy perch on either hand, and we have just such a position as the heart of the climber delights in.

Nevertheless, the admiration of the sterner beauties of nature must not distract our attention from the work on hand, which reminds me that on this very climb there once happened the most marvellous escape from a serious accident that I have ever seen.

A friend, who sad to tell has since fallen a victim to his passion for guideless climbing, was struggling up the overhanging crack to join me on the ledge previously referred to. When his jovial-looking face appeared over the edge, he suddenly stopped to take in the beauty of the situation and remark on it. Almost at the same moment there was a noise of something falling, and a quick peep over the edge showed a piece of rock clattering down the scoop apparently on to the heads of our companions below. It seemed as though nothing could save the last man, for there was scarcely time even to warn him, and the falling mass went crashing down, as it seemed, straight on to the top of his skull. But, remarkable to tell, at that very instant he jerked his head backwards to look out for what was coming. Before he himself or any of us could realise what had happened, the cigar which he was smoking was carried from between his lips, and the only damage left to remind him of a really hairbreadth escape was a slight scratch on the side of the nose. Of course profuse apologies followed the mishap, but they seem strangely inadequate on such occasions.

To revert again to the actual climbing, it will be evident that the last 30 feet up to the top of the Arrowhead afford a piece of very "spicy" climbing. The situation is exposed, and the hand- and foot-holds are none too capacious, but a skilful leader will make the almost vertical knife edge of rock his principal mainstay. Gripping this with knees and hands alternately, he can gradually glide upwards until it is possible to touch the lower part of the tip of the

Arrow. At this point there is quite a good resting-place for the climber who, despite the sensational situation, keeps calm and collected enough to use it. The crest of the ridge slopes at an easier angle, and it is possible to lie comfortably against it with the hands gripping a large pointed hold and the feet on either side resting against the edge of the rough rocks. There are two ways of completing this difficult section; one goes directly up over the top of the Arrowhead and the other consists of a sort of hand-traverse to the left immediately below it. The latter route is preferable, and it ends in the narrow gap just behind the Arrowhead where the easy way from the Eagle's Nest Gully joins it.

The finish directly up the main ridge from the gap provides most exhilarating and unique climbing. It is advisable to clamber partially on to the tip of the Arrow and then stride across the gap until the balance is found, which allows the body to swing across gracefully. This achieved, a steep piece of buttress is soon negotiated and we can sit astride the narrow ridge. It is almost level at the point of arrival, but unfortunately the sharpness of its crest makes the long stay in one position somewhat painful. There is room for five or six climbers to sit in this hobby-horse attitude, but even the magnificent views down the vertical rock-walls on each side seem small recompense for the discomfort, so that it is best to move on.

After edging along this peculiar place in characteristic fashion there is a sudden vertical rise on the crest of the ridge. This necessitates different methods, and there is a narrow platform at the foot of the pitch which provides an acceptable base of operations. At the top of this the ridge narrows again, though not quite to the same extent, and another steep step is soon encountered. This is of a wider and milder form, and above it the ridge gradually widens out until the base of a small gendarme is reached. It is best to scramble directly over the top of this obstacle, and thence there is an amusing stride across to the main mass of the mountain beyond. This is called "The Strid," and though some may feel nervous in the crossing, the place is really safe, and only requires confidence to make

the last step across boldly. Grassy slopes then lead easily up to the main ridge of the Napes, and thence, if desirable, the top of Great Gable is easily gained in half-an-hour's time, or a few minutes longer if the Westmoreland crags are surmounted *en route*.

During the ascent of the Arrowhead the Eagle's Nest Arête looms largely in the view. It is fully 400 feet high, and the rock throughout is magnificent. The lower 150 feet look appallingly steep, and its saving virtue is that there is no deception about it, for this almost vertical and well-nigh ledgeless buttress scares away nearly everybody, tyros and experts alike. It was my good fortune to make the ascent of the ridge some time ago, and a personal description of the climb will convey some idea of the nature of one of the most difficult British climbs.

We were feeling strong after several days' climbing at Wastdale, and the weather being as perfect as our physical fitness, these suitable conditions prompted us to attack "the most hazardous and dangerous Lakeland climb." We tied ourselves on the opposite ends of our eighty-foot rope at the base of the crags, and scrambled easily up the rocks to the right but close to the crest of the ridge. About 30 feet above the starting-point, our further progress straight ahead was barred by overhanging rocks, and it became necessary to take to the crest of the ridge on our left. We knew the place by repute; and fearful, but probably imaginary, tales are told of the great climbers who made the first ascent dangling helplessly on the rope held by the leader who had so creditably overcome this initial difficulty. The part of the ridge confronting us closely resembled a gigantic human nose of the Wellington type, and we had to climb on to its tip, which was about 20 feet higher than the small ledge on which we stood. Two narrow but convenient cracks, 2 or 3 inches wide and rising parallel about a yard apart, supplied the only available holds. With the right foot jammed in one crack and the hands gripping the edge of the other firmly, I climbed up somewhat slowly for about 6 feet, and bearing carefully to the left, the tip of the nose could just be reached, and the hand-holds on it were no more than large enough to make one feel the desperate



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THE EAGLE'S NEST ARÊTE, GREAT GABLE

ONE OF THE MOST DIFFICULT CLIMBS IN ENGLAND. SCAWFELL PIKE FORMS THE BACK-GROUND

nature of the situation. To leave the friendly cracks and allow the body to swing steadily out on these holds was the crux of this portion of the climb, and I felt none too happy as I led over this part with my feet dangling in the air, "feeling for foot-hold through a blank profound." Fortunately, when once the swing round was taken, a satisfying knob of rock was within reach, and the body could be raised into comparative safety. Above this part extreme caution was necessary until a little flat platform as big as the seat of a chair was gained, where it was pleasant to sit and realise that life was worth living.

The situation was decidedly sensational. Beneath me was a sheer plunge of more than 100 feet to broken rocks which ran down more or less steeply to the Sty Head track, 1500 feet below, whilst on each side the cliffs were only slightly more impossible-looking than the crags ahead, which we knew offered the only way up the ridge. The small ledge previously referred to was called the Eagle's Nest by the first climbers, but when perched up there it was difficult to imagine that any self-respecting eagle with matrimonial intentions would choose such a narrow and inconvenient nesting-place. I stood on "the nest" holding the rope, whilst my companion climbed the tip of "the nose" and made himself as comfortable as possible on the tiny hand- and foot-holds at his disposal.

I know of no climb causing such nervous and muscular exhaustion as the next 50 feet, for the ridge was almost vertical, and all the rocks sloped downwards in such a fashion as to make them practically useless as hand-holds.

When I had to stand on these sloping holds higher up, it was easy to understand that the Eagle's Nest Arête is no place for a married man.

But the worst feature of the whole climb was that the difficulty increased as I mounted higher on the sloping ledges, and woe betide the unlucky leader who does not reserve his strength and nerve for this portion of the ridge. Inch by inch I worked delicately up the slabs for about 50 feet, until suddenly a small hollow on the right as big as an egg-cup gave very fair hold for the fingers, and ere long I was able to scramble up to a somewhat broad ledge.

A shout of relief proclaimed success to my companion, who had been watching operations most patiently from the "nest," and some kestrel hawks on the great crags above eerily re-echoed the cry. A jutting rock was available round which to hold the rope during the ascent of my companion, who also felt greatly relieved when the easier part was reached.

The mountaineers of early days would have considered such a climb utterly impossible; but I venture to suggest that the high-water mark of human climbing is attained on the Eagle's Nest Arête, and future generations will scarcely climb more difficult places unless the law of gravitation or the human anatomy undergoes very radical changes.

The upper part of the ridge consists of sundry slabs and cracks which anyone who has come up the way described will easily overcome, and it is often ascended by parties who reach the arête by a deeply-cut chimney away to the left.

Besides the easy route there is another recently discovered means of climbing the lower section. This is called the Ling Chimney; it is situated about half-way between the easy way and the arête proper.

The Needle Arête offers a climb of a simpler kind, and it is the easiest of the three main ridges. The introductory slab which rises from the notch immediately behind the Needle is the stiffest pitch, and, though only about 12 feet high, it may become difficult enough in icy weather to defeat an expert party. There is a curious "pocket" in the slab which serves as a good hold for the right hand, and the foot eventually uses the same resting-place whilst the body is raised on to a ledge at the top of the pitch. Above this it is possible to bear away to the right; but, by keeping on the crest of the true arête straight ahead, some slippery vegetation will be avoided and a stretch of splendid rock is handled instead.

A grassy terrace is soon in evidence which can be followed round to the left, and thus into the final uninteresting section of the Needle Gully. It is preferable to keep to the arête throughout, and on a fine sunny day it is glorious to grip those rough upper buttresses and scramble over the boulder-

like towers that adorn the finish of the arête in such profusion.

It is often stated that the Needle is the most popular rock on any British mountain, and I venture to suggest that this renown is largely due to the photographic advertisement it has received. Wherever exhibited, the picture always attracts attention. I well remember walking down the Strand a few years ago, at the time of the Scawfell Catastrophe, and being attracted by the crowd who were hustling each other to gain a peep at the illustrations exhibited by one of the well-known weekly illustrated papers. Despite the attention of one of the policemen in charge, I was able to work through the crowd to the front, and there beheld with astonishment some familiar climbing photographs, amongst which was a large reproduction of the Gable Needle. The printed matter underneath was incorrect and flowery, evidently improved by a sensation-loving journalist, but the crowd was consequently the more impressed. An exclamation punctuated with profanity from an eighteen-stone City man on my left of—

“What fools! You wouldn’t catch me going up there,” was answered by the ubiquitous adult who knows everything, “Ah! but don’t you know there is a step-ladder up on the other side?”

It would have been useless to step forward and offer an explanation, but I may say that this is the average opinion of the British public regarding the Needle. Needless to say “the other side” is for the most part impossible from a climber’s point of view, and the usual way runs up the crack seen in the photograph. This refers to the view of the west side taken from the “Dress Circle,” which is the appropriate name given to the capacious grass ledge below the Eagle’s Nest Arête, where a large audience could watch the ascent of the Needle in comfort, though more possibly in fear and trembling; the sight is not always soothing to the nerves, especially if novices are taking a leading part in the performance.

It should be understood that the crack previously referred to splits the base of the Needle into two main parts, and the other side of it facing Lingmell is often used as a means of

gaining the "shoulder." Personally I think it is easier and safer than the more popular westerly route, though the first step is somewhat steep and requires strong arms.

It is not necessary to describe the ascent of the Needle in detail, suffice it to say that the final part is the *bonne bouche* of the climb; it is difficult as well as sensational enough to satisfy the ardour of most enthusiasts. To comfort those who arrive at the top and grow fearful about getting down again safely, I may say that the Needle is one of those places that is much easier in the descent than the ascent. In extreme cases a rope could be tied around the top to assist the last man down, and his companions on the "shoulder" can also render considerable assistance.

The Ennerdale face of Great Gable also possesses a remarkable precipice. The Central Gully is the main feature of the crags, and it is the only opening which cuts the face from bottom to top. There are two good pitches in the lower part; the middle section contains the staircase pitch with a difficult crack just to the right, whilst the upper portion widens somewhat and permits of several variations. Straight ahead a great buttress thrusts its front down into the bed of the gully, and, round a corner slightly to the right of this, some convenient cracks wind alluringly up the steep face. This is the Direct Finish, and for capable parties it provides capital sport.

There are several easy, wide chimneys some distance away on either side of this obvious route, and the one to the left on the other side of the buttress is that usually followed. Away to the right of the Direct Finish, at the top of a broad grass terrace, there are the ruins of an old smuggler's hut. Old Moses was the owner's name, and we cannot help admiring the choice of situation for his still-room. This *cache* would be considered inaccessible from below so far as ordinary mortals might be concerned, and from above a curious narrow chimney of considerable steepness leads down to the terrace. The exit from this on to the summit of the mountain is awkward to find from above, and if Moses patronised his own productions to any serious extent he must often have missed the way. Despite his cunning hiding-place he was several times raided and haled before the county justices. However, we are

told that each time he soon returned, and "somehow or other his worm was always returned to him because he made such good whisky."

There are several moderately difficult climbs on this northern side of Great Gable. The Doctor's Chimney is one of the neatest, and it is situated in the left wall of a wide scree gully that rises some distance west of the Central Gully.

The Engineers' Chimney is one of the severest courses on the mountain; it starts some distance above the base of the cliff, and is not very easy to locate from below. It is really the first well-defined opening in the vertical slabs just east of the upper reaches of the Central Gully. The Oblique Chimney is an easier expedition, which begins at a higher level and still farther to the left. Beyond this the crags rather lose their character; and, after yielding the scree-filled climb of Stony Gully, they dwindle away to Wind Gap, the well-known *col* between Great and Green Gable.

THE PILLAR ROCK

The Pillar Fell may fairly claim to be the roughest mountain in Cumberland. Its northern front, which overhangs the bleak, lonely valley of Ennerdale, is broken up by rugged projecting ridges into a series of deep, rock-encircled recesses. In the grandest of all these stands the famous Pillar Rock, springing almost vertically upwards on its north side for nearly 700 feet. Wordsworth has thus accurately described it in his poem "The Brothers"—

"You see yon precipice; it wears the shape
Of a vast building made of many crags,
And in the midst is one particular rock
That rises like a column from the vale,
Whence by our shepherds it is called The Pillar."

Until comparatively recent times it was considered inaccessible, but nowadays there are at least eighteen different ways of gaining the summit as well as several variations of these. Thus it will be understood that the Pillar Rock offers the most varied climbing; there are courses of all grades of

difficulty. The most satiated expert and the veriest tyro will each be able to make an appropriate selection, complete their climbs accordingly, and return to Wastdale both equally happy and hungry.

Climbers usually approach the Rock from Wastdale Head, and the best route follows the Black Sail Pass track as far as the curious, vegetation-covered moraine mound called Gatherstone Head. Above this it is preferable to leave the path and strike to the left up a steep slope to the gap in the ridge called Looking Stead, which is situated just below the well-marked peak on the main ridge. Following upwards along by the wire fence, in a westerly direction, after a few minutes' walk the head of Green Cove is reached and a conspicuous cairn is seen. This marks the beginning of the High Level Route which leads across the rough face of the Pillar Mountain to the north side of the Rock, skirting *en route* the front of the Shamrock. At first the rough path descends about 50 feet from the head of Green Cove, and from thence onwards cairns make the route unmistakable.

Personally I prefer this as a means of approaching all the climbs on the neighbouring crags. The east side of the Rock can be easily gained by crossing the foot of the Great Doup, and then after a short ascent an obvious ledge leads across the upper face of the Shamrock, and thus to the open fell-side above the south side of the Rock. The west side can also be approached from this point, but another way which possesses equal merit skirts the foot of the north side of the Rock. The well-marked grass terrace, whence many of the climbs begin, continues around and drops rather steeply over into the gorge of the Waterfall. After descending into this and scrambling up the other side, a convenient opening will soon be found in the broken rocks to the left, and thus up to the slopes below the west side.

When it is understood that the famous Rock stands on the steep, north slope of the Pillar Mountain and some distance below its summit, it is easier to comprehend its topographical details. Thus the northern front of the cliff that abuts on the lower part of the mountain will be the highest, whilst that on the southern side must be considerably lower, and the slopes running up to the east and west will tend to diminish the



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THE NORTH FACE OF THE PILLAR ROCK

imposing nature of the mass from either side. This general description applies fairly consistently, but it must be noted that the eastern side of the rock is further dwarfed by the huge mass of the Shamrock, which, from certain points of view, masks its more impressive rival ; hence the name.

It may be advisable to begin the survey of the climbs after approaching by the High Level Route. The great cleft which splits the Shamrock in twain is known as the Shamrock Gully. It is atrociously rotten in its lower section, but at the top there is one of the most formidable pitches of its kind in the district. It constantly baffles the best efforts of expert parties and sends them sadly down the dangerous way they have come. The pitch consists of several, huge, wedged boulders and must be nearly 70 feet high. When ice is present the left-hand exit is best ; but under ordinary conditions the way up the right-hand side is less severe.

The buttress to the right of the gully will be found a better way to the summit, and from bottom to top the rock is sound.

The Shamrock Chimneys are plainly visible from below, cutting deeply into the steep part of the cliff, but they do not continue down to the screes at its foot. Some unpleasant grass ledges have to be surmounted before the climb begins, and it is an easy matter to mistake, or altogether miss, the lower chimney. This unsatisfactory commencement is probably the reason for the comparative neglect of the Shamrock Chimneys.

Continuing along the rough, scree slope, the attention is suddenly attracted by the savage, boulder-filled cleft of Walker's Gully, which divides the Shamrock from its more stately neighbour. The scene is grand in the extreme, and, if viewed on a gloomy November morning with wisps of damp mist lazily curling amongst the stupendous rocks, it reminds one of the weird scenes depicted in Doré's illustrations of Dante's *Inferno*.

Walker's Gully was the last of the "great unclimbed couloirs of Cumberland" to yield to the climber's attack, and I well remember our impression of it on a memorable day during the Christmas holidays of 1898. The weather had been uniformly bad, and we were practically imprisoned for

nearly a week at Wastdale, waiting for the one fine day which came at last.

As we approached the Rock after trudging through the soft, new snow which masked the familiar High Level Route, surely never did expedition seem more hopeless. The grand cliffs were a study in black and white, verily the great giant had donned his coat of icy mail. His lower extremities were decorated artistically with snow festoons, his breast was guarded by a thin but impregnable veneer of ice, and slender icicle tassels adorned his mist-wreathed head. Truly we were puny Davids at the feet of mighty Goliath, and that is how we felt when we wrestled with the lower rocks. But our hopes rose when we gained the hollow above the first pitch. There we saw the weak spot in the giant's armour, for the warmth of the rocks in the deep recesses of the gully had to some extent warded off the sudden attack of winter, and it was evident that the rocks were comparatively free from ice in several places.

Then we fell to work in real earnest, up over slippery boulders and through waterfalls, behind great chock-stones into chill, dark caves, to creep out still higher through diminutive "skylights," until at last we crouched in the dripping cave below the final obstacle. Attack after attack failed here, for the icy slab on the right seemed impregnable. Nevertheless, our doughty leader triumphed at last after a rope had been looped through a hole in the roof of the cave to afford a handhold, which was only attainable by a prolonged promenade over my shoulders and head, whilst our patient third man belayed the rope around a friendly rock in the cave. Once the leader was firmly placed up above, we soon followed him, and foregathered amongst the soft snow at the top of the pitch. Then arose fears of frostbite attacking one of our leader's feet, and this made us hurry quickly down to the drier and warmer comforts of Wastdale.

Thus vanished the terrors of Walker's Gully, and the exciting stories of the many previous attacks are nowadays forgotten. If the climb is completed by the finish up the Great Chimney to the top of the Pillar Rock the course could almost be classified as the best in the district.

However, it is too difficult ever to become as popular as the climb up the front of the famous Rock; this is called the

North Climb. It is usually the *ultima Thule* of beginners who come to Cumberland; but I fear that, after its thorough acquaintance has been made, a feeling of disappointment is apt to arise, for its appearance and reputation of extreme difficulty then scarcely appear justified.

After leaving the screes at the foot of Walker's Gully we scramble up some broken rock and gain the end of the Terrace, where the North Climb actually begins. The place is obvious enough; piles of stones mark the opening in the cliff, and the rocks are unmistakably scratched,—in fact so much so that these scratches will prove the best guide up the climb throughout.

It might be mentioned that the way lies at first up the bed of Savage Gully until the latter takes a sharp bend to the left, whilst at the same time it assumes an almost impossible angle of steepness. This Gully has been climbed through its entire length up to the Nose on four or five occasions, but it is an unsafe climb, and the novice will quickly realise this as he climbs past below the first pitch. The ordinary North Climb, when it leaves the Gully, follows the line of least resistance, which is up an obvious but small crack straight ahead. Thence a series of steep and interesting slabs lead up into a recess with a bulky, slightly overhanging buttress on the right. A curious, slanting trough runs across the face of this, and provides the world-famed Stomach Traverse, which proves much simpler than its name would imply.

Then a short but sharp pitch is soon passed, and, after penetrating into the Split Blocks in order to clamber on to their summits, we are confronted by a narrow ledge leading across to the left to a remarkable, overhanging mass of the mountain. The former is called the Strid, and the latter is the much discussed Nose, which effectually stopped all the earlier explorers.

It is impossible for most leaders to take a party over the Nose direct, and the usual method adopted to circumvent it is to lower the leader down the vertical wall below the Nose into the depths of Savage Gully. Crossing this, it is possible to traverse round for several yards on easy grassy ledges until a short, easy chimney affords access to some heather slopes above; these lead back to the top of the Nose. Unless the leader is conversant with this route, or if the weather is un-

favourable, it is advisable to lower another climber into Savage Gully to assist him during the flanking operations. In either case the rest of the party remaining below the Nose should unrope and allow the leader to carry the length around with him. After he has lowered the rope to his companions they will be able to clamber up in safety.

Another way of gaining the top of the Nose is by climbing the steep face on the right by means of a shallow crack near "the Strid." About 15 or 20 feet above this a well-defined crack leads almost horizontally across the otherwise holdless cliff, and after a break to a higher level at about half its length it ends just above the side of the Nose. This is the Hand Traverse, but several hairbreadth escapes have happened during its passage and it is seldom made use of. Above the Nose all serious difficulty vanishes, but loose stones are rather too plentiful in the easy little gully leading to the Low Man. There are three or four ways of gaining the High Man from this point, but none of them could be called difficult.

The course just described is usually known as the Stomach Traverse route up the North Climb, and it may be mentioned that an even more interesting variation starts a few yards along the Terrace at an obvious corner. Both routes unite at the Split Blocks, and it is curious to note that the variation has become known as the Easy Way, though it possesses much greater technical difficulties than its more impressively named neighbour.

The New North West Climb starts at the other end of the Terrace above the waterfall, and it is a long climb of sustained difficulty; the ascent is scarcely justifiable without previous exploration from above.

On the west side of the Rock there are only two recognised courses. The ordinary West Climb slants across easy ledges from the Screes to the Low Man, where it joins the North Climb. The other course, the New West Climb, leads direct from near the same point to the High Man. The former is the simplest way up the Rock, and the latter, though somewhat difficult in places, is rapidly becoming one of the favourite means of gaining the summit.

It may have been noticed that climbers have a weakness

for biblical names, and a survey of the south side will demonstrate the tendency. Viewed from this point a deceptive mass of rock stands in front of the High Man and apparently offers an "easy way up." Many climbers are lured upward by this simple route, only to find themselves divided from the main rock by a deep cleft. Thus the point of arrival is called Pishgah; the Promised Land, or High Man, rises beyond, and Jordan, or the gap of that name, rolls between. From the Gap there are three ways up the High Man. That to the left, the West Jordan, is slabby and more difficult than the Central Jordan route, which consists mostly of crack-climbing. The East Jordan is purely a face climb from near the foot of the Central crack, but it is too risky to be tackled by many leaders. The deep rift leading up to Jordan Gap from the west side has also recently been added to the list of difficult climbs.

The east side of the rock provides several of the easiest courses, and it is scratched by boot nails in almost every direction. The Broad Slab is the key to most of these climbs, and an outstanding rock called the Notch is passed by traversing around its base into the upper easy portion of the Great Chimney, wherein lies the rest of the climbing. This is called the Slab-and-Notch route, and several variations of it can be made. It is a simple scramble into the angle where the Notch joins the main curtain of rock, and thence to mount upwards to the left across two almost parallel cracks that form holds respectively for hands and feet. These end in a final chimney almost directly above the Slab, and the climb is known as the Pendlebury Traverse. The rough rocks of the arête can be safely attacked from the angle above the Notch, or a way made upwards to the right into the top of the Great Chimney.

The complete ascent of the Great Chimney from the head of Walker's Gully is the most ambitious climb on this face, and the lower section is decidedly difficult. The Curtain on the left retaining wall of the Great Chimney has also been climbed from bottom to top.

The Old Wall route starts below the Great Chimney, and skirting across the slopes above Walker's Gully leads by one of the easiest of scrambles to the summit.

Daylight is often waning when parties arrive at the cairn on the High Man, and it may be worth noting that the quickest and easiest way off the Rock on such occasions is by descending the Central Jordan crack into the Gap. In making for Wastdale it is not necessary to go to the top of the Pillar Mountain. A better route runs almost south-east from the neck connecting Pispah with the mountain slope. A large cairn should soon be passed, and after skirting up and around the upper reaches of Great Doup a rough path ends near the wire fence. This can be followed even on the darkest night over Looking Stead down to Black Sail Pass, with its well-marked track leading either to Buttermere or Wastdale Head.

CHAPTER XII

SCAWFELL, GREAT END, AND SOME OUTLYING CLIMBS

“Where rose the mountains, these to him were friends.”—BYRON

CLIMBERS with a love for ridge or buttress work will cling to the attractions of Great Gable and the Pillar Rock, but the resorts *par excellence* for the gully-climbing specialist are the ghylls and chimneys of Scawfell. Regrets are often expressed that its bulky and comparatively uninteresting neighbour the Pike should have the advantage in height by a few feet, but this is not altogether an unmixed blessing. There can be no doubt that if the more inaccessible peak rejoiced in the honour of being the highest point in England it would become dangerously overrun by tourist traffic, and accidents would increase accordingly. Even as it is, the question of desecrating the beauties of its northern precipice with numerous danger posts has been suggested.

Fortunately the authorities think that people who go into such places have got beyond the stage of intelligently noticing warning boards, and it is almost true that on many men such things have the same effect as a red rag has on a bull.

In any case, one must be satisfied with their respective heights as they stand, for the philanthropist who would wish to add another 50 feet to Scawfell's top is scarcely likely to arise. If such a thing were to happen, the railway speculator would doubtless immediately grip the mountain in his iron hand, for the continuation of the narrow gauge from Boot would be a much simpler undertaking than that up Snowdon. Long may it be before the shriek of the locomotive echoes through the crags, or the grand recesses of the Deep Ghyll become the convenient rubbish shoot for a summit hotel!

As there are at present neither railways nor even *chaises à porteurs* the climber has to walk to the foot of Scawfell Craggs to reach his "polytechnik," to quote from a German friend's vocabulary, and Wastdale Head is by far the best starting point.

It is a mistake, by reason of the waste of time and energy, to follow *en route* the ordinary tourist track up Scawfell Pike. The long grind high up over the shoulder of Lingmell and down again a few hundred feet into the hollow below Brown Tongue is unnecessary. From the inn the best way is to follow the road down the valley as far as the turning on the left just beyond the diminutive school. After following this rough road for about 300 yards it is advisable to cross the stony bed of the stream, which is usually free from water, then, literally, slope off to the right around the shoulder of Lingmell at a rather higher level than half-way between its base and the ordinary tourist track. This route is now usually followed by the Wastdale habitués, and after a visit or two the new-comer will recognise the somewhat indefinite track which winds around the mountain.

Once fairly into the great hollow between Lingmell and the Red Screes the view is most impressive. The gully-seamed face of Pike's Crag rises in front, leading the eye round by the curious gap of Mickledoor to the jagged crest of Scawfell, which, like a huge monster, rears itself on high. The whole scene is grim and stern. Nearer approach adds to its austerity, and this savage mountain retreat, encircled with massive crags piled in wildest confusion and ending in a weirdly tooth-like sky-line, suggests the cavernous mouth of some gigantic creature awaiting its prey, whilst below, the taper-like slope of Brown Tongue appropriately enhances the simile.

The climber who wishes to gain an idea of the topography of the main Scawfell massif will prefer to scramble out of this great combe in the heart of the mountain, which by the way is known as Hollow Stones. The best view-point for this purpose will be near the Pulpit Rock in Pike's Craggs. This is the prominent outstanding mass on the northerly side of Mickledoor Ridge, and from it the great precipice on the other side of the famous chasm is seen in its true proportion and



THE FACE OF SCAWFELL, FROM THE PULPIT-ROCK ABOVE PIKE'S CRAG

perspective. It cannot be much more than 700 feet high, yet under certain effects of lighting it looks double the height, and the sharply defined gullies that cleave the majestic cliff from base to summit convey an impression of exceeding steepness and difficulty.

Before making a closer inspection of the climbs, some mention should be made of the general geography of the mountain. The bulk of tourists and travellers approach Scawfell from the Pike and first arrive on Mickledoor Ridge. Contrary to the general opinion, the passage of this place is quite a safe and simple walk for anybody, but it ends suddenly against the overhanging crags of Scawfell. From the point of abutment to a broad grass ledge leading temptingly upwards is scarcely 20 feet, but climbers great and small have failed to mount this comparatively short stretch.

Pedestrians who wish to reach the summit of Scawfell from this side without performing any rock gymnastics usually go by Lord's Rake. This is an obvious landmark on the western side of the crags which appears as a deep couloir slanting up to the right from the base of the highest part of the cliff. To reach this from Mickledoor Ridge it is best to descend some steep, small screes until a broad grass ledge is seen on the left, and then follow this across to the boulder-filled entrance to the Rake.

One of the leading modern guide-books calls the route just described the Rake's Progress, but the mistake should be noted by all mountaineers, because it is understood that most of the difficult courses start from the Progress, and some of them are almost impossible if attempted from this lower ledge. The real Rake's Progress is of much narrower construction, and runs along the face of the crags at a higher level. It is not easily distinguished from our view-point on the Pulpit, but careful inspection will disclose its beginning just where Mickledoor Ridge abuts against the crags, and the first few yards of it are in an upward direction. The Progress provides an easy but in places a somewhat sensational traverse amongst wonderful rock scenery, and ends at the foot of the Lord's Rake. To gain the summit of Scawfell, the way by the Rake is unmistakable. It is somewhat toilsome on account of the

presence of large quantities of loose and steep scree, where, as an Irishman once said, "You take three steps up and four down, so it's a slow job getting to the top." The first stretch is the most laborious section, then with milder "ups and downs" the circuitous route runs to the summit.

Those who are not afraid to depart from the guide-book directions may be glad to know of an easier, quicker, and more interesting route up Scawfell. Near the top of the first steep rise in Lord's Rake the view into Deep Ghyll on the left is magnificent, and those who wish to see more of its beauties may be tempted to turn off here and walk up on to some safe grass ledges on the west wall of the ghyll. By continuing along these ledges and keeping directly below the great cliff on the right it is possible to walk right into the bed of Deep Ghyll above all the difficult pitches. Thence to the summit, if the main bed of the ghyll is adhered to, the route resembles the first part of Lord's Rake. When snow or ice are present this short cut, or even Lord's Rake itself, should not be attempted except by a properly equipped mountaineering party.

To turn to some of the favourite climbs, it may be observed there are two striking-looking pitches in Deep Ghyll, and the lower one is seen to advantage in passing up the beginning of Lord's Rake. A huge boulder has fallen from above and become jammed between the perpendicular rock walls. The deep, black cave thus formed is easy of access in the summer-time, and can be quitted most easily by scrambling out on the right through a hole in the roof until good standing-room is afforded by some stones which have become wedged between the boulder and the right wall. The next step is rather more difficult, but is quite safe if the rope is securely held from the inside of the cave. This has been proved on more than one occasion, but the leader who is clumsy enough to fall off such a place under ordinary conditions deserves scant sympathy from his companions. In fact, it might be profitable to leave him dangling for some minutes until he repents of the error of his ways and promises to take an inferior position on the rope.

The second obstacle has lost most of its former glory, because quite recently nature has made an improvement

which, from the enthusiast's point of view, spoils the climb. The long crack to the left of the pitch used to be the usual route, but some great rocks have literally caved in behind the main jammed boulder, and left a capacious hole as a simple exit to the screes above. In the earlier days the ascent of this pitch direct over the chock-stone was considered the stiffest thing of its kind around Wastdale. It has only been completed two or three times, and there is a true story abroad that one of the greatest rock-climbers of the day spent a whole morning unsuccessfully attempting to follow the example of his predecessors.

The ghyll opens out considerably above this pitch, and several ways can be made up to the summit, though most of them are too liberally adorned with loose stones.

Deep Ghyll is pre-eminently a winter climb, and when the mountain reposes in its wintry mantle the scene is changed indeed. The crags are covered with fine, icy spiculæ, and rear themselves upwards like huge, frosted towers. In mid-winter a long snow-slope, seldom less than 12 feet deep, covers all the minor equalities, and instead of the tiresome progress up over loose screes, this gives easy access to the first pitch. Previous to this the ice-axes may have been useful, and under certain conditions the rope may be requisitioned at the foot of Lord's Rake. The snow is often banked up very steeply over the top of the entrance to the large cave at the bottom of the ghyll, and every precaution is necessary to prevent a slip through the snow bridge which is thus formed. If the party contains any heavy or clumsy members it is advisable to hold the rope taut in case of a sudden descent through the bridge.

Such events are not uncommon here, and I remember once assisting three others to haul a mountaineer of almost elephantine proportions out of the damp recesses of the cave whither he had suddenly fallen, dragging a surprised friend down on the top of him. Fortunately the snowy bed of the cave saved him from serious harm, the only damage being due to the boots of his companion coming in contact with his head. Such little mishaps only add enjoyment, specially to the spectators; but this is more than counterbalanced if one has to assist in extricating the

temporary cave-dwellers from their uncomfortable quarters. At anyrate, it is a heavy task to haul a person weighing over sixteen stone out of such a position, and if a slip knot be tied in the rope round his waist he is scarcely likely to wish to repeat the performance.

To continue the winter ascent of Deep Ghyll, a long spell of excellent practice in step-cutting usually ensues before the second obstacle is reached. The rocks are generally very icy here, and it may probably be preferable to make a way through into the cave below the jammed boulder; on a windy day this will afford a comfortable, sheltered landing place. Then follows the making of a long tunnel through the snow that blocks up the hole in the high roof of the cave.

This is not a comfortable proceeding either for the leader or for those below in the bed of the cave; the latter will, however, be kept active and warm by dodging the falling chunks of ice and snow. As soon as the hole is large enough to more or less admit of a passage, it may be a good plan to propel the stoutest and most amiable member of the party through the hole by means of ice-axes judiciously applied from below, and the remaining climbers can then follow his capacious lead with ease. On emerging from the hole one is impressed with the grandeur that winter adds to the scenery. In the summer the place conveys a very mild impression of height, but now the steepness of the snow plunging away down into the depths of the ghyll makes one realise that a slide down its icy surface must mean utter destruction on the rocks far below.

The upper part of the climb may provide the most serious difficulty of all. After a long bout of step-cutting it is often a severe test on a leader's strength if a large cornice overhangs the head of the ghyll.

If the rocks are not too icy on one side or other they may be useful in avoiding this, otherwise steps will have to be cut in the almost vertical wall of snow below the cornice, until it can be broken away, or in extreme cases the tunnelling process may have to be resorted to.

The view from the summit on a clear winter's evening is truly magnificent. In the foreground is the terrific sweep

of the Scawfell precipice, decorated with exquisite frost-work designs and festooned with huge icicles. Farther away the familiar Lakeland peaks rise majestically from the dark valleys, and an alluring peep down Borrowdale to Derwentwater carries the eye still farther to "Scotia's frost-bound shore."

In the opposite direction the Carnedd's in Wales can be dimly seen piercing the yellow greyness, and a faint dark mass to seawards in the track of the setting sun marks the Irish mountains, with the Isle of Man apparently close at hand. Truly this is a wonderful spectacle for our hazy English climate, but such scenes are only one of the rewards of these enthusiasts who visit our homeland mountains when winter holds sway in the higher regions.

In either winter or summer the explorer of Deep Ghyll cannot fail to be impressed with the splendid wall of rock on its eastern side. This culminates in a conspicuous pillar near the top of the ghyll, and it is divided from the main mass of the mountain by a deep cleft. A black-looking chimney leads up to this cleft from Deep Ghyll, and is nowadays known as the Professor's Chimney. The original chimney of this name is really the small gully slightly west of its more imposing namesake, but the latter has now monopolised all the name and the popular favour.

The same biblical names are used here as on the Pillar Rock. The cleft is called Jordan Gap, the rocky peak that is easily accessible from the head of Deep Ghyll is Pisgah, and the Promised Land is, in this case, usually known as Scawfell Pinnacle, though Scawfell Pillar and Deep Ghyll Pillar are used by some didactic authorities. Scawfell Pinnacle is the more convenient name, and all travellers who investigate the face of Scawfell are attracted by its remarkably bold outline.

One of the early writers on English climbing called the Napes Needle the Dent du Géant of the Lake District, and enlarged on the relative merits of it and the original Dent du Géant as rock climbs; whilst another authority said "it is harder than the Aiguille du Dru." The Scawfell Pinnacle has fallen a victim to the same form of comparison, and it has been likened to the Pieter Botte in Mauritius. In contrasting the merits of our small peaks with those referred to above it might be said that comparisons are invidious. If all the ridges of the

Great Napes and several Gable Needles were placed one above the other they would scarcely equal the Little Dru, though possibly no single stretch would be as technically difficult as the top piece on our English Aiguille. Such comparisons also might tend to bring our British climbs into needless and undeserved contempt.

The local story of the American lady who, while sailing up Ullswater on the steamboat expressed the idea somewhat forcibly, is worth quoting. The skipper, in flowery language and with considerable pride, explained that in front of her she saw the "Monarch of mountains," "the mighty Helvellyn." "Hell what?" the lady loudly exclaimed. "Helvellyn," replied the skipper, whereat the lady from "across the pond" smiled broadly, and guessed that "if the Rockies could see him they'd laugh some."

However, rock-climbers must never treat our British peaks with disrespect,—that Scawfell Pinnacle, for instance, possesses dangers and difficulties of its own has been recently proved with terrible realism.

There are five different ways, exclusive of variations, by means of which this well-known rock can be ascended; they vary from easy to exceptionally difficult. The "Easy way up," as it is called, starts from Jordan Gap, and on this short side the ascent scarcely involves more than 50 feet of actual climbing. In early days the slab up which the route for the most part lies was moss-covered and slippery in wet weather, but nowadays the rock is scarred and scratched by the tread of nail-armoured feet, and new-comers will find moss or other vegetation conspicuous only by its absence. Jordan Gap can be entered quickly by scrambling round the eastern side of Pisgah, and from there the route upwards is obvious. Those who have visited this place will understand why a rope should always be used, but it may be well to point out that a fall on the lower part of this "Easy way up" would have a fatal termination if this safeguard were neglected, for the funnel-like top of Steep Ghyll yawns beneath, awaiting those who fail in the "crossing of Jordan." It is interesting to note that the Pinnacle was not first ascended by the exact route now utilised, but by a still easier, though more sensational way, slightly to the right.

It may be as well next to deal with the long climb up Scawfell Pinnacle from the opposite side, by way of the lower part of Steep Ghyll and Slingsby's Chimney, thus named after its discoverer, who is now ex-president of the English Climbers' Club.

Viewed from the foot of Lord's Rake this "prepicissitous pininnicle" as an Italian friend once called it, when struggling with its pronunciation and difficulty at the same time, shows one of the most remarkable rock faces in Britain. It is built up on the lower part by a series of slabs somewhat after the boiler-plate pattern, and the overhanging portions of each plate develop their characteristics most markedly about half-way up the face and mostly on the Deep Ghyll side. Slingsby's Chimney is situated on the nose of the Pinnacle, just about where this formation ends. The usual course followed is up Steep Ghyll for about 250 feet, until a vertical slabby pitch is seen in the deeply cut bed of the gully. A few yards lower down and on the right it is possible to climb out of the ghyll up some indefinite rocks until a broad grass terrace can be reached which leads slightly upwards and across the face in a westerly direction. A huge flake of rock that has become split off from the main mass is an unmistakable land-mark. The cleft behind this is known as the "Crevasse," and the climber will notice that the nail-marks of his predecessors have blazed the way to the top of the detached rock that forms its lower lip. Standing on the pointed tip of this, there is a fine view upwards into Slingsby's Chimney; a glance backwards shows the tremendous slope of slabs dropping over into Lord's Rake, and on the right there is a striking view down into Deep Ghyll. The passage of the "Crevasse" requires confidence, and in wet weather the holds are quite small enough to warrant the "step" being called difficult. The landing on to the narrow grass ledge makes some climbers feel uncomfortable; but there are satisfactory spikes of rock around which the rope can be wound if necessary whilst the leader attacks the Chimney.

In the early descriptions of this climb there are lucid accounts of the difficulty of getting into Slingsby's Chimney, which overhangs slightly in its lower extremity. The commencement was considered almost impossible, if attempted without assistance from the second man, but now it is an

exception to hear of the leader requiring help. This might indicate greater skill on the part of modern climbers, and perhaps truly so to a small extent; but the disclosure of new hand and footholds is the more likely reason, or at least so the "old school" would say.

The chimney finishes in a rather unsatisfactory manner with some small, loose, and steep scree, and the downward slope of the rocks makes it advisable for the leader to run out about 40 feet of rope before finding anchorage for the ascent of his companions. It may be interesting to recall a little adventure the writer and some friends once had here one Easter, and it will serve as a warning to those who visit Jordan Gap without realising the fact that any stones dislodged thereabouts choose Steep Ghyll as a natural means of reaching the foot of the crags.

A party of four of us were ascending the long side of the Pinnacle, and the leader had just secured anchorage at the top of Slingsby's Chimney when the last man of the party betrayed unusual excitement. He was just then scrambling up the easy rocks on to the ledge from Steep Ghyll, and almost immediately the cause of his anxiety was apparent, for there came from above the sound of falling rocks. Before the slightest cover could be gained there was a noise as of ten thousand demons let loose, and some large rocks came crashing down Steep Ghyll ricochetting from side to side in wild confusion. The larger rocks were followed by a regular avalanche of smaller stones, and, had the event happened but a few minutes earlier, it will be easily understood that some of us might, to say the least of it, have been hurt. As it was, several of our party had the narrowest escapes from being struck by flying splinters. Some of the larger rocks struck the wall of the ghyll with such tremendous force that they were shattered to fragments, and these went whizzing through the air in almost every direction.

In the lull that followed this storm the sound of voices was wafted down to us. Then we all shouted collectively, and even now it makes me shudder to think what our last man said, in answer to a faint inquiry from above, "Is anybody climbing down there?" He is a peaceable, religious-minded man, but for once all self-control vanished and his language was as

fearful as it was justified. Then we all hurried up to the top of the pinnacle by the usual way over the Low Man and the "Knife Edge Arête." Two very penitent tourists were sitting dolefully on Pisgah awaiting our approach. Terrible things were spoken across Jordan that day, but we had perforce to accept their apologies with as good a grace as possible. They were two pedestrians who had walked up from Boot, and after meekly explaining to us that "they never dreamt that anyone would object to their rolling stones down that black-looking hole in the mountain," we felt that further recrimination was useless.

The other three routes up Scawfell Pinnacle are only suitable for expert parties, and one of them is scarcely justifiable under any circumstances. This refers to the direct ascent of Scawfell Pinnacle from Lord's Rake, without entering either Steep Ghyll or Deep Ghyll. The course lies directly up the repulsive-looking slabs into a small cave below the "Crevasse" at the foot of Slingsby's Chimney. After an exciting traverse it is possible to climb up into the cleft and gain the summit by way of Slingsby's Chimney. Reference has already been made to the fatal accident on this face of the Pinnacle; but it may be again mentioned that the direct climb has only been completed on one occasion; and there is a sort of understanding, in the inner circle of climbing society, that the place should be left alone.

Just above the "Crack" exit from the second pitch in Deep Ghyll there is seen a narrow fissure sloping up the great slabs that form the perpendicular left wall. This is the key to another route up the Pinnacle and though exceptionally severe its ascent is quite a reasonable undertaking for experts. The fissure vanishes on a sloping slab about 90 feet above the start, and then the climber is forced to the left by the overhanging rock directly ahead. After traversing a few yards, a prominent platform is gained from which a stone can be dropped straight down for a few hundred feet to the lower screes of Deep Ghyll. But upward lies the route, and the steep arête now confronting the party will try the skill and nerve of the best of leaders. Certainly the first man can receive a slight help at the start from a reliable "second," but whilst this is being given the rope should be belayed carefully

round a convenient rock that protrudes from the slabby "take off." This is one of the situations where a third climber is invaluable, because he can secure the rope and steady the second man whilst the leader is assisted up the *mauvais pas*. The climbing is very entertaining for fully 50 feet higher until the cairn on the Low Man is reached.

The only remaining climb up the Pinnacle is that which starts out of the higher part of Deep Ghyll, just below where the overhanging left wall of Professor's Chimney terminates on the screes. This is a comparatively short climb, but the lower 20 feet are sufficient to prevent it from ever becoming a favourite course. It has only been completed on two or three occasions, and on one of these at least, though the leader overcame the difficult part, the rest of the party failed to join him, despite the moral and physical support of the rope.

Before forsaking the vicinity of Deep Ghyll, mention might be made of two climbs on the west wall. From the foot of Professor's Chimney a remarkable rift is seen on the opposite wall of the ghyll. This is the Great Chimney, and though it only contains one pitch this is of a formidable nature. A tremendous boulder is wedged across the chimney; and, after scrambling up into the cave below it, a traverse can be effected out on the right wall until a way is feasible between the chockstone and the slabs still further to the right. The face of the west wall becomes more broken lower down the Ghyll and there are several ways up its lower portion. Higher up, the climb becomes more definite though not difficult, but it will never become popular with so many greater attractions in its immediate neighbourhood.

Moving in an easterly direction along the Rake's Progress and taking a general survey of the climbs passed *en route*, the deep rift of Steep Ghyll first attracts our attention. Except as a means of reaching the Nose of Scawfell Pinnacle it is scarcely visited by rock-climbers. The upper stretches are composed of a series of sloping, moist, moss-covered slabs. These are loose as well as, for the most part, uncomfortably vertical, and neglect of Steep Ghyll follows as a natural result, though some cynics might unwarrantably suggest that it is the very place in which "gluttons for danger" would revel.

The next gully that cuts deeply into the heart of the cliff is Moss Ghyll, one of the best known and most visited of English climbs. Its ascent has been the object of more famous literary efforts than any other climb in the district and the description of its first conquest has almost become a classic.

Some personal notes on the ascent may probably prove useful, especially as the original route is now scarcely ever followed throughout. It is preferable to start the climb in the bed of the ghyll at the small cave pitch which rises from Rake's Progress. The ascent of the wall on the right is somewhat easier but much less interesting, and it must not be forgotten that several of the large detached flakes of rock are standing insecurely on the steep face. A friend of mine a year or two ago was beginning the course by the face and clambering up over one of these apparently firm, columnar-shaped masses. He was last on the rope, and his predecessors had passed over the same place and were waiting a little higher up without holding the rope as "the place was simply a promenade." My friend's description of his feelings when the great rock to which he was clinging gradually began to move forward preparatory to its collapse on to the Rake's Progress, about 250 feet below, was thrilling in the extreme. He had presence of mind enough to leave loose of his holds on the falling mass and thus prevent being crushed beneath it. Still Providence must have played a leading part in the escape; for he fell clear of the crag and struck the soft vegetation that forms a sort of padded ledge on the Rake's Progress thereabouts. The others had plenty of time to secure the rope, and thus prevent a further fall to the lower ledge which would scarcely have been performed so successfully. Strange to say, no serious damage resulted beyond severe bruises and the necessity for a few days' retirement from climbing.

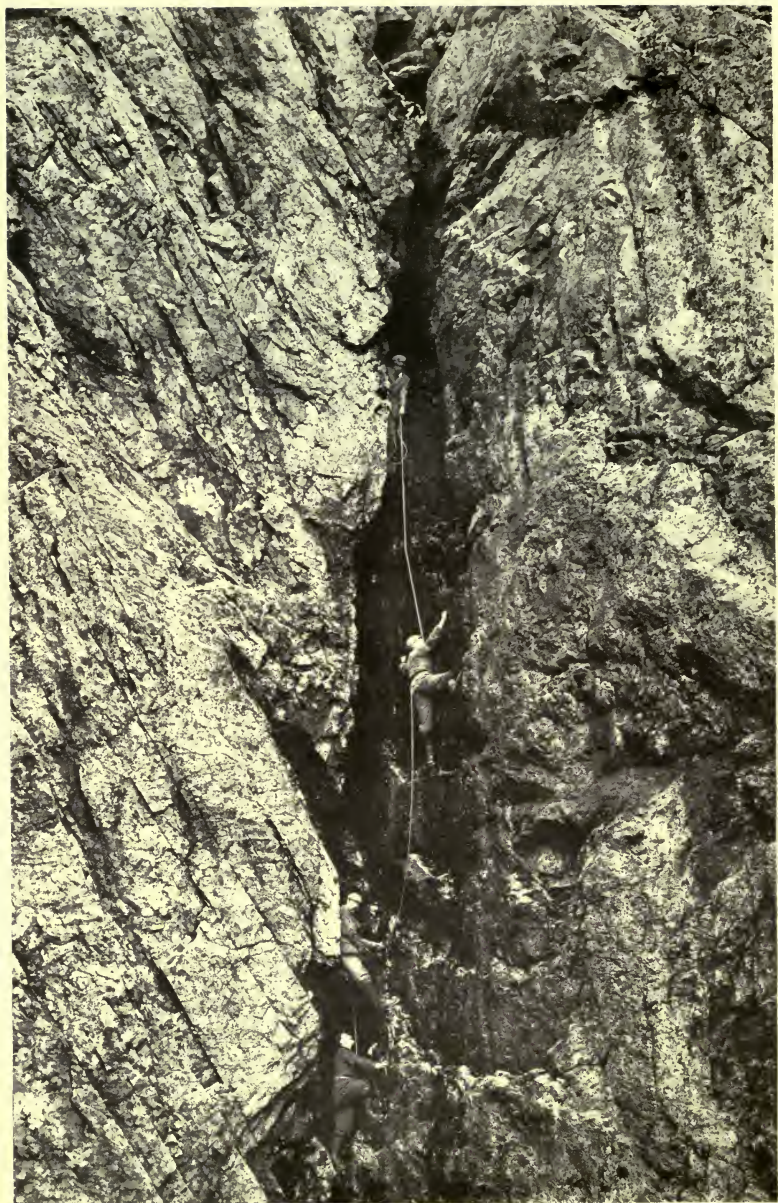
The first serious obstacle in Moss Ghyll is the steep face climb up to Tennis Court Ledge, and many leaders consider this the stiffest part of the whole climb. The hand-holds are excellent, and this induces many men who are not leading to neglect the proper use of their feet on this stretch. Thus considerable exhaustion often ensues before the ledge is attained; but, if some small spiky holds are made use of by

the right foot, the finish will not be as inglorious as otherwise so often is the case.

Whilst on Tennis Court Ledge it should be noticed that a route starts from its extreme right-hand corner and finishes up the buttress which separates Moss Ghyll from Steep Ghyll. This is the Pisgah Buttress, and a vertical, narrow crack leads from the Tennis Court to a similar grass-covered ledge which has been dubbed the Fives Court. Scarcely fifteen feet separate the two ledges, but this short stretch is the most difficult part of the buttress; the upper buttress scarcely gives much trouble in good weather.

To revert to the ordinary Moss Ghyll route, it should be noted that the traverse into the gully from Tennis Court Ledge is best made by keeping down below the rounded slabs on the right. The great rocks which block the ghyll are now confronting us, and though they present a fine appearance it is difficult to realise that a party could penetrate thus far, yet fail at this point, and return down the steep wall below Tennis Court Ledge. When the pitch did actually yield, a step was cut in the rock slab on the left wall, and, though modern climbers cavil at the proceeding, we must remember that the passage of many hob-nailed boots and natural weathering changes have probably altered the place considerably. The usual course is to walk up the screes into the cave below the great boulders. When well within the cave and facing outwards, the "window" between the two largest boulders can be seen up above, and this is the key to the situation; it is a safe though stiff pull up on to the "window ledge," and once here it is possible to look out of the hole and survey the smooth steep slab on the right along which the traverse outwards is made. There are now several fairly good foot-holds available for this purpose, and the old advice saying, "you must start with the right foot," is scarcely worth repeating. After traversing for about 6 feet it is possible to ascend 10 or 12 feet, until a satisfactory corner is gained, where a good belaying-pin for the rope can be found.

Thence, after the second climber has joined the leader, the traverse back into the ghyll will not prove troublesome. A great hollow in the crags is now reached, and a fairly easy route out of the ghyll can be made up the sloping slabs on



Abraham

THE GREAT CHIMNEY, MOSS GHYLL, SCAWFELL

IN SEVERAL PLACES THE CHIMNEY IS TOO WIDE TO PERMIT THE USE OF THE BACK AND KNEE METHOD (P. 54). THE LEADER IS SAFELY ANCHORED IN THE "SENTRY BOX"

the left. This is known as Collie's Exit, but the Great Chimney straight ahead is the proper termination of the climb. The Chimney is fully 60 feet high, and about half-way up there is a curious collection of jammed stones which, from a leader's point of view, afford a position of safety. To gain this natural sentry-box is the crux of the climb, and some good ledges in the right wall provide the best means; but the leader should take some care to reserve his strength, for the ledges become small and awkwardly spaced before a short traverse can be made to the entrance of the sentry-box. The overhanging chimney just above this "*firma loca*" requires careful attention, but the difficulty is not as trying as in the lower section, and ere long some good hand-holds are within reach. The slope of the ghyll then suddenly becomes easier, and a short pitch with abundance of loose holds soon finishes on the summit ridge.

Farther east of Moss Ghyll there is an exceptionally steep and smooth buttress which at present has not been climbed. Just beyond this, two well-marked parallel cracks slant down the face, and both are nowadays climbed, though it should be understood that the most westerly of the two is reached some distance above its foot by an upward traverse across the face.

A broad grass ledge about 30 feet above the Rake's Progress is the key to both these courses. For many years Collier's Climb was the only known way of reaching this convenient ledge, but the difficulty was excessive. This part of the Scawfell Cliff was comparatively deserted until the year 1897 when the discovery of the Keswick Brothers' Climb showed that the ascent to the broad ledge could be made from the western side without encountering unreasonable difficulties. Dr. Joseph Collier gained the same point from the opposite side, and forced a way up to the summit of the cliff by means of a succession of cracks, beginning on the left of the ledge.

The Keswick Brothers' Climb continues up a steep crack which can be entered from the other, or western, extremity of the ledge; and after bearing away to the right over a conspicuous pinnacle it finishes in the deep crack previously mentioned.

East of these two courses the crags dwindle away considerably as they approach Mickledoor Ridge, but they are

too smooth and overhanging to afford the climber more than one opportunity of attacking them. The start is easily located a few yards along Rake's Progress from Mickledoor Ridge where a small, sharp-pointed rock, the top of which is profusely nail-marked, stands near the vertical rock-wall and provides a good "take-off."

On the Eskdale side of Mickledoor Ridge the climber, in contradistinction to the tourist, will find the two easiest ways up Scawfell from the Pikes. About the length of a cricket pitch (or 22 yards) down the screes, from the top of the ridge, a peculiar split in the rocks is observed. This is the entrance to the Broad Stand, and the late R. Pendlebury euphoniously called it the Fat Man's Gully. It is certainly rather narrow, but climbers are usually of modest corporal circumference, and the spectacle of one *en panne* is rare indeed. Once through the Gully a broad platform gives access to a corner on the left; and two rocky steps, sometimes compared to those on the Pyramids, lead up to the open, grass amphitheatre above all serious difficulty.

The obvious cleft of Scawfell Chimney is a few yards further down the screes than Fat Man's Gully, and its lower reaches provide simple exercise. Some distance higher, an unmistakable pitch bars further progress; and, though it can be climbed by experts on the left side of the great boulders, most visitors prefer the easier exit. This is made by means of a short but steep ascent of the right wall just below the pitch, and considerable ingenuity is required to manage this obstacle with safety and neatness. The rocks are usually wet, and it should be understood that a rope is a necessity here as well as on the Broad Stand, for a slip on certain sections of these popular and comparatively easy routes would prove serious.

The approach to Broad Stand from above is difficult to find in misty weather. Numerous accidents, minor and otherwise, have happened in the vicinity, and even on a fine day inexperienced mountaineers who attempt to go the nearest way from Scawfell to Scawfell Pike will find the Broad Stand treacherously deceptive and dangerous. A very common mistake is that of getting to the right-hand side at the top of Scawfell Chimney. Although this may lead to unpleasant

complications, and possibly a descent to Eskdale, the likelihood of an accident is not great, because the wanderer quickly arrives above precipitous rocks where the danger is aggressively obvious. However, the ordinary Broad Stand route keeps down to the left side of the Chimney over well-scratched indefinite rocks, until to the unpractised eye it seems almost possible to slide down a short distance and jump to the screes near Mickledoor Ridge. The great slabs slope downwards in an insidiously tempting manner, and the unwary tourist is likely to "lose his head" before descending far, and nervously take a seat on the "tread" of one of the steps until a rescuer arrives or he gains enough self-control to return. Fortunately, climbers are generally about the fells at the season when these adventurers frequent the Broad Stand.

It has been my good fortune, or in some cases misfortune, to encounter some of these "lost sheep," and the following is a typical example of the happier kind.

It was a very hot day early in the October of 1896, and a large party of us were resting below the shadow of a great rock near the foot of Brown Tongue. Whilst we were grumbling at the heat of the sun a remarkable, human figure attracted our attention. It was that of an aged man walking buoyantly up the steep slopes; he was shaded by a huge umbrella resembling those ancient family erections used by the Swiss peasants. He was some distance to the left, but we could discern the smile of superior self-complacency on his scientific-looking features and also note that he carried a numerous collection of brown paper parcels, some in his arms, others dangling over his shoulders, and smaller packages tied to some of his coat-buttons. Climbers are accustomed to anomalies but this was altogether too unusual, and I am afraid some of us showed faint signs of amusement which but served to make the vision give us a wider circle. That same evening, after climbing some of the Pike's Crag Gullies, we were returning along to Mickledoor Ridge *en route* for Wastdale when someone remarked quickly, "What's that on Broad Stand?" In the afternoon light it was difficult to see the details of the rocks, but some unusual tiny white specks were visible, and one of them seemed to move. An

Oxford tutor who was one of the party first realised the situation; he hinted that some of the younger ones should make haste and rescue someone on Broad Stand. Then we set off at a gallop across the steep screes and arrived below the rocks, where a curious sight met us. The remains of a large umbrella were jammed in Fat Man's Gully, a pair or two of boots, some slippers, and a few articles of underclothing, were scattered about the lower rocks, whilst, surveying the wreck, was the owner of it all, sitting with his legs dangling over the last high step above the platform. We knew from the discarded paraphernalia that it was the spruce old man of the morning, otherwise recognition would have been impossible. He was white as a sheet, his tongue hung dryly between his lips, his hair and beard were weirdly intertwined, and altogether I have never seen such a dismal spectacle before or since. Of course all this was appreciated at a glance, and without a second's delay we called to him not to move on any account, whilst I hastened up the easy rocks to his side. It was a case of speechless fright, but action was all that was required, and the old man could at least understand that we were able and willing to help him. To cut a long story short we soon got him out of his dilemma, and, after water had been procured from the other side of Mickledoor, he was able to take an active interest in worldly matters. The collection of the contents of the various brown paper parcels was a lengthy and responsible undertaking, but ere long our new friend was able to talk and assist in the search. Sundry pairs of stockings were missing, and many other valuables, such as geological specimens, but at last we got under way for the valley. On the way down we learnt that the wanderer had left Wastdale that morning intending to cross Mickledoor into Eskdale, but we were quite unable to discover where he had spent the day, or how he had arrived at the lower slab of Broad Stand, though I fear he must have crossed over the mountain and fallen down the upper step.

The rock-climber who makes Wastdale his centre will find numerous attractions on many of the smaller and less popular crags.

Mention has been made of the Pike's Crag Gullies, and a

splendid day can be spent exploring and climbing these. The large accumulation of new climbs and variations has made the naming of them a difficult matter, and the results sometimes savour of the ridiculous, but the less romantic idea prevails here. The Pike's Crag Gullies are labelled A, B, C, D, from left to right, as seen from Hollow Stones. Most of them are comparatively simple courses, but B, if climbed direct, is the hardest "nut to crack." There is an impressive—compressive would be a better adjective—exit from the cave forming the top pitch. This is no place for a climber even of average stoutness, for the passage will make even the lithest of men realise how impossible it is for the proverbial camel to go through the eye of a needle. The hole emerges some distance back from the edge of the gully, and is so placed that an unwary pedestrian might easily stumble into it specially in twilight. From personal experience I may say that it is rather scaring to be sitting quietly admiring the view across Mickledoor when a human head is suddenly thrust out, as it were from the bowels of the earth. To add to the effect, clothing will usually be of the scantiest description, and the face may exhibit an expression of pain due to the constricting grip of the tight hole. The sight bears a remarkable resemblance to a famous picture by Doré, which I believe is entitled the "Punishment of the Simonites"; and if those below in the cave are soothing their impatience by means of the fragrant weed, the smoke rising through the orifice adds yet more to the realism.

The other gullies scarcely possess much individuality, though the great pitch at the foot of C Gully compares favourably with the first obstacle in Deep Ghyll; but unfortunately there is a way of obviating the difficult direct climb by taking to the left side.

The Wastwater Screes possess attractions for many enthusiasts, but the ordinary man will generally be satisfied with one day amongst their somewhat loose and water-filled gullies. The Great Gully is the best and safest to attack, whilst C Gully is just the reverse. It is scarcely ever climbed throughout, and some narrow escapes have occurred through large portions of the gully giving way under the weight of the climbers.

Great End is a mountain of a different kind. In the summer season its northern face provides a suitable scene of operations for the careful tyro. The South-East Gully is choked throughout its length with short but amusing pitches; whilst the Central, with its complications, has always something new to offer the ardent explorer. Cust's Gully, which cuts deep into the western end of the face, contains most attractive rock scenery, its bridge-rock is one of the sights of the Wastdale district.

But in winter-time Great End is the resort *par excellence*, and most of its normally easy courses will provide a tough day's sport for experienced parties. The orthodox means of approach under these conditions is Skew Ghyll; and there is no finer snow-expedition in Great Britain than the combination of this with one of the more ambitious gullies in Great End.

Space forbids more than a passing notice of the outlying favourites. Climbers who stay in Borrowdale will find the Sergeant Crag Chimney in Langstrath, with its muscle-testing, central pitch, most edifying, whilst the Gash Rock at its foot is a stiff little problem from either side. Raven Crag Gully and Coombe Ghyll, which are situated in the great hollow in the western breast of Glaramara, are worth attention. Those who visit them should not fail to explore the curious series of caves and cliffs which can be seen from Raven Crag on the opposite side of the "Coombe." It is possible to penetrate far into the mountain by carrying some artificial light; and if the entire absence of water could be allowed for, the caves would bear comparison with some of the haunts of the Yorkshire "pot-holers."

The rocks in the vicinity of Buttermere have recently attracted several experts, and although most of the courses are short there is some difficult work on The Haystacks, High Stile, and the neighbouring peaks.

The finest climbing in the Lake District, apart from that around Wastdale, is found on Doe Crag which is one of the southern spurs of Conistone Old Man. The village of Conistone is the best centre; and, though the way to the Crag is somewhat circuitous, they can easily be reached in an hour and a half. The raw novice should not attempt any of the Doe

Crag courses; even the easiest is treacherously loose, and the Great Gully though not as severe as the others, is not fair game on which to try his prentice hand or foot. Still, the savage mountain recess, with the gloomy surface of Goats' Water reflecting the clean-cut front of the forbidding-looking precipice, is a scene to gratify the artistic sense of any lover of mountains, and the gullies are worth seeing from a distance.

The Great Gully is most conspicuous of all with its funnel-shaped summit, and on its right the Great Buttress looks more difficult than it is in actual practice. The Central Chimney forms a narrow cleft up its front, and the long continuous scoop that bounds the buttress on the right is the Intermediate Gully. A sloping, rocky bastion divides this favourite resort of experts from the Easter Gully, with its unmistakable introductory cave-pitch and the higher obstacle of terrific aspect. Then more broken and less well-defined buttresses lead along to the northerly end of the face, where the dangerous North Gully forms the last of the serious climbs on Doe Crags.

The glories of Pavey Ark have been sung, or rather written, in the earliest days of English climbing, and the contiguous crags of Harrison Stickle have been thoroughly explored. Some courses on Pike o' Stickle, and more especially those on Gimmer Crag, are of recent discovery; some of the gymnastic inventions on the nose of the latter rock are exceedingly difficult, but this will be obvious even to the untrained eye. Either of the small inns at Dungeon Ghyll, in Langdale, are suitable centres for all the above, and thence Bowfell, with its slabs, buttresses, and the gullies of the Links, will be found easy of access.

There is a regrettable tendency in these days for mountaineers of scarcely any experience to come to the Northern English playground and, without careful practice on easier courses, to attack at once the most difficult climbs. Besides this, new and untried acquaintances are probably their companions, and under such circumstances serious accidents are bound to occur in the future as they have done in the past. Those who spend much time on the mountains appreciate the risks that many men wilfully incur; and, though the outside world hears only of the more serious calamities, the list of comparatively minor "spills," as they

are sometimes called, is each year likely to bring the grandest of sports into disrepute.

It is no exaggeration to say that some of the British climbs have reached the border-line where the law of gravitation must assert itself, and human muscle and endurance cannot prevail. A little further and the inevitable must happen. Let mountaineers discourage this tendency of the extremists, and remember the gospel of the old school, that the real mountain-lover should find the keenest joy and pleasure in tackling courses that are well within his own powers, and not those where common-sense and discretion indicate that unjustifiable risks are being run.

CHAPTER XIII

ROCK-CLIMBING IN NORTH WALES—SNOWDONIA

“Craggs, knolls, and mounds, confusedly hurled,
The fragments of an earlier world.”—SCOTT

FOR British climbers the mountains of Arvon and Merionydd offer attractions and opportunities of a most interesting nature. During recent years much has been heard about the lack of new routes amongst the crags of the English Lakeland, and the well-known climbing resorts have been stigmatised as “exhausted centres.” Though this is practically true, the same cannot be said of Welsh climbing, for there are new climbs of all shades of difficulty awaiting the ardent and enthusiastic explorer. At the same time it should be noted that the more popular faces of the peaks of Snowdonia are quickly becoming as well known as those of the more northerly playground, and the most obvious and other routes have been explored and ascended.

Any new climbs of importance in these places are likely to prove of the more difficult order, or so extremely easy that they are scarcely worth notice. Nevertheless some portions of the Carneddys possess virgin climbs, and the Rhinogs, Arans, and other outlying groups are almost unvisited by the so-called “devotees of the tooth and nail order.”

The recently published work on *Rock-climbing in North Wales*, with its ninety odd courses described and illustrated, has turned the climbers' attention to the principal Cymric peaks in no uncertain manner, and at popular holiday-times the various mountain hotels and farmhouses have recently been crowded to excess. This may to a certain degree be accounted for by reason of the ease of access to North Wales. Dwellers amidst the turmoil and fog of our greatest city may spend a few hours in luxurious travelling on the Saturday

afternoon, enjoy the perfect peacefulness of the most delightful of mountain inns, breathe the purest air of Cwm Glas by means of the Parson's Nose, or climb Snowdon, and be back to town in time for work on the Monday morning.

But a much longer visit is desirable if the climber wishes to benefit by the practice and experience he may gain upon the Cymric peaks, which by and by he will come to respect and love—to respect for the difficult crag-work they offer, and to love for their beauty and grandeur.

These virtues, so dear to the climber, are bestowed most lavishly on the shapely peaks which cluster around Snowdon, the "Queen of British Mountains." One may safely say that all the best Welsh climbing is situated in the immediate neighbourhood, and the various mountain groups are divided into three distinct sections. A glimpse at the map will show that the two famous passes, Llanberis and Nant Ffrancon, with their excellently constructed roads, cut right through the heart of this region.

South of the Llanberis Pass there is the great Snowdon massif, with its long rocky ridges running down in almost every direction. Then on the other side of the pass the bulky peaks of the Glyders and the craggy pyramid of Tryfaen separate that narrow defile from the more open valley of the Pass of Nant Ffrancon. The mountains forming the farther or north-east side of this pass, which, by the way, contains the famous London to Holyhead Road constructed by Telford, are Carnedd Llewelyn, and Carnedd Dafydd, with their subsidiary peaks. These are respectively the second and third highest mountains in Wales, the former is so near the height of Snowdon that a few years ago some consternation was caused amongst railway speculators when the surveyors, by a temporary slight error, gave it the point of honour.

There is delightful accommodation for climbers visiting either of these groups. At the top of Llanberis Pass is Gorphwysfa, about 1,100 feet above sea-level, and in close proximity to the peaks on either side of the pass. Over a mile lower down the pass on the Capel Curig side is situated the romantic little mountain inn of P. Y. G. This word is an Englishman's convenient version of the real name, which is Pen y gwryd; and most of us will agree that the abbreviation



SNOWDON FROM THE PINNACLES OF CRIB GOCH

Abraham

is best, for life is short and we in England are not wont to dispense with vowels to this extent.

In the Nant Ffrancon valley there are two well-known farmhouses, Gwern-y-gof-isaf and Gwern-y-gof-uchaf. These are available for those who prefer this class of accommodation ; but Ogwen Cottage, near the top of the pass, at a height of nearly 1,000 feet, possesses many advantages both as regards situation and comfort. Any of these places can be reached from Bettws-y-Coed, which is situated on a short branch of the L. and N.-W. Railway ; its excellent express service of trains enables the traveller from the great cities to reach the Llandudno Junction in quick time. It is perhaps preferable to approach Ogwen Cottage by way of Bangor and Bethesda ; in either case carriages can be sent down from the point of destination to meet the train.

There is a peculiar tendency amongst many English climbers to neglect North Wales ; they boldly state that they do not like the natives, and seem to think that their own ignorance of the Welsh language will cause trouble and inconvenience. Now these same doubting ones will probably refer to the kindness and open-heartedness of the Cumbrian dalesmen and compare them with their Celtic brethren, much to the latter's disadvantage. Though also prejudiced in favour of my own countrymen, I must enter a protest against this wrong opinion of the dwellers amongst the Welsh mountain valleys. It is quite unfair to judge these mountain folk by their lowland representatives, such as are met, say, at the fashionable watering-places along the coast. I have spent almost as many climbing holidays amongst the Welsh as amongst my native Cumbrian mountains, and I must say that for genuine kindness, simple honesty, and reliability the Welsh people are fully equal to my northern neighbours. Therefore, let no climber neglect North Wales on this score ; and, as regards the language, he will find people who understand English wherever he may go.

Reverting to the topographical details of Welsh climbing, it may be noted that Snowdon itself, specially in the popular months of July, August, and part of September, is no longer a pleasant resort for the rock-climber. Several of the gullies that lead to the top have become rubbish-shoots for the

summit hotel, and no amount of mountaineering skill will help the climber to dodge the almost continuous shower of ginger beer bottles, sardine tins, and other details that come tumbling down poor Snowdon's magnificent northern precipice.

The "mountain gloom and mountain glory" of Ruskin are disturbed by the screeching, smoky, mountain railway bringing crowds of irreverent excursionists, who, as a rule, find the interior of the hotel with its thirst-quenching appurtenances far more interesting than one of the most beautiful mountain views in Great Britain.

Luckily, there is more than enough to console the enthusiastic rock-climber on the neighbouring peaks which form the famous "Horse-shoe of Snowdon." This is an apt description of the amphitheatre of mountains of which Snowdon occupies the central position, with the serrated ridge of Crib Goch to the west, the stupendous crags of Lliwedd to the east, and the beautiful Llyn Llydaw reposing peacefully in their midst.

This savage mountain recess is open in the northerly direction, and thence zigzags the rough track leading from the main road at the top of the Llanberis Pass, and starting almost opposite the front door of the Gorphwysfa Hotel. Less than an hour's walk from this point will take the climber within the shadow of Lliwedd, which is the finest crag in Wales, and few in all Britain can rival its bold precipice in grandeur or richness of opportunity for the climbing enthusiast. But he who touches it must be *essentially* an expert, for none of the present routes up Lliwedd can be recommended to the tyro.

From the pony track that leads up Snowdon and follows for a time the western shore of Llyn Llydaw, there is a magnificent view across the lake of this precipice; and it will be noticed that three conspicuous gullies cleave it from base to summit.

The Eastern Gully is the one to the left, with the Far Eastern Buttress forming its left retaining wall, and the Eastern Buttress walling it in on the right. This gully itself is one of the easier ways up Lliwedd, speaking comparatively, but the buttress on the left offers a route which is never likely to become very popular, for it is extremely difficult. The way

lies up some well-marked vertical cracks that run straight up the centre of the buttress, and in the upper part a slight divergence is made to the right.

It is now possible to ascend the Eastern Buttress, the one to the right of the gully, in four or more different ways, but none of them can be considered suitable for any but extremely expert parties. The simplest of the series starts from near the foot of the Eastern Gully, and inclining slightly to the right passes close to a peculiar rock that from below has the appearance of two horns. This is known as the Horned Crag Route, and it becomes very easy in its final section. This Eastern Buttress was first conquered by means of a series of sloping chimneys that strike almost up its centre. This is called the Central Route, and besides containing much excessively difficult work, it is rendered dangerous by the presence of loose turf ledges and rotten rocks. The serious climbing on this route, and that to the right, finishes below a great mass of white quartz about two-thirds of the way up the face, and this landmark can be seen with the naked eye from our standpoint across the Llyn, though its presence is more easily detected by means of field-glasses.

The other principal way up this fascinating buttress starts from a cairn about 10 yards west of that which marks the beginning of the last-mentioned course. It begins with a narrow chimney, and after zigzagging to right, and then to left, continues directly up the face amidst wonderful rock-scenery. Two long chimneys of extraordinary steepness afford sensational climbing with such views downwards as remind the visitor forcibly that he has a life to lose. The rock is firm throughout, and, on the whole, this way up Lliwedd, which has been called Route II., may be considered the finest buttress climb in North Wales, if not the finest yet discovered in Britain.

Continuing from left to right, the great rift in the middle of the cliff next attracts attention, and this is the Central Gully. The ascent of this gully throughout has not yet been made, since about a third of the way up it there is a great bulge of undercut rock; and, unless some alteration through weathering occurs, it seems likely to prove too much for the present generation of climbers.

The route up the gully is obvious as far as this impossible

section, and at that point a safe ledge leads out to the right and thus on to the front of the Western Buttress.

The climber is then immediately confronted by two short slabby stretches of rock one above the other, with good grass ledges between and below each section; from these the leader can be anchored and assisted by a push or even a shoulder if necessary.

Above this the buttress slopes back at an easier angle, and as the rocks become broken up by capacious ledges of heather-covered turf, the rest of the ascent is inclined to become monotonously easy.

It should also be mentioned that this Western Buttress can be ascended right from bottom to top without surmounting very serious difficulties, and, if such are met with, they can be more or less avoided by traversing along the broad ledges, which intersect the buttress almost throughout its entire height, until an easier way upwards is available. There are three or four ways up this buttress, but minute description is impossible and unnecessary, for they allow of such numerous variations.

The most interesting of these, and the one which contains most real rock-climbing, starts from a conspicuous cairn just to the right of the foot of the Central Gully. After bearing slightly to the right, it runs straight ahead up a rather vaguely defined couloir that can be recognised by the water-worn appearance of the rocks. At some points steep pitches will be encountered, but the hand- and foot-holds are large enough to convey a sense of safety despite the sensational view downwards.

For sake of comparison it might be said that the combined Central Gully and Western Buttress route affords the easiest recognised way up Lliwedd, whilst those on the Western Buttress follow closely in order of difficulty.

The famous Slanting Gully is the next point of interest, and until our ascent of it in the spring of 1897 it was looked upon as impossible. The great cave-pitch about half-way up had proved the *bête noire* of previous parties, and the sad accident to Mr. Mitchell, of Oxford, had added to its reputation for inaccessibility. The natives had various, curious legends about this cave on Lliwedd, and supposed that it contained relics of previous habitation. Local history



Abraham

ON THE WESTERN BUTTRESS OF LLIWEDD

THIS PHOTOGRAPH SHOWS THE WELL-KNOWN PLACE WHERE IT IS NECESSARY TO LEAVE THE
CENTRAL GULLY BELOW THE *IMPASSE*

tells us that once upon a time a shepherd was said to have climbed thus far. He peeped through a wide crack behind the cave, and was able to see right into the heart of the mountain, where a great army of ancient Cymric warriors was encamped; they were reposing around their camp-fires, with their weapons stacked against the walls. The myth that they are there still lingers in local traditions. Of course during our first ascent we saw no signs of the cave ever having been inhabited, and the difficulties of the ascent prevented any serious attempts being made to discover or disturb the mythical warriors.

The real crux of this climb lay in making a way out of the great cave-pitch, which in all must be fully 70 feet high. The upper part of the route was up a chimney which gradually narrowed and overhung until one felt as if one were emulating the action of the household fly when crossing the ceiling.

Just below the most difficult section we found several scratches on the rocks, and a *piton*, or iron peg, stuck insecurely in a crack inside the chimney. It is generally supposed that this was the place where our predecessor, who was unfortunately climbing alone, became exhausted and fell. Above this obstacle the gully proved comparatively easy and the top was within hail after three pitches had been conquered. Nowadays it is possible to partially avoid the most dangerous section of the cave-pitch by climbing up a difficult slab to the left of the chimney, but the ascent of the Slanting Gully still ranks as one of the most trying courses in Britain.

The buttress immediately to the right of this is known as the Slanting Gully Buttress, and a visit to it will well repay a moderately strong party of climbers.

The route starts from a large cairn near some quartz ledges at the foot of the buttress, and continues easily straight ahead up into a conspicuous, black-looking cave about 150 feet above the base.

An interesting slab leads to the left from that point, and after some pleasant ridge-climbing has been negotiated, it is possible to gain the more open buttress and follow upwards, over steep slabs, by a variety of routes.

After this the rocks dwindle away in a westerly direction,

and there is little of interest before the broken-up crags or Pen y Gribin offer a long, continuous but unsatisfactory way of reaching the *col* near Bwlch y Saethau. This lies just below the steep part of the final eastern ridge of Snowdon. The same point is better attained by the ordinary scramble up Pen y Gribin which can be approached from near the outlet of Glaslyn.

However, before leaving Lliwedd, it might be mentioned that the small white cross at its foot, which some people think is a far too conspicuous feature in the landscape, was placed there in memory of the late A. E. Evans. The fatal accident to this gentleman happened in 1888, and he fell whilst attempting to traverse from the Central Gully to the Western Buttress. A party of three climbers, for some curious reason, essayed the ascent unroped after a long day's climbing elsewhere. The last man became exhausted, and, losing his hand- and foot-holds, fell in four or five fearful leaps to the rocks over 200 feet below. A well-known authority thus curtly and justly criticises the regrettable affair: "If ever a party courted disaster it was done on this occasion!"

But enough of accidents; let us rather revel in the glorious scene from the top of Lliwedd; and one appreciates such a view the more if this vantage point has been hardly won after a prolonged struggle with one of the more difficult routes of ascent.

The actual summit is a roughly weathered cone, and more than 1,000 feet below us the rippling waters of Llyn Llydaw glisten in the sunlight, with range upon range of mountains away to our right. In the opposite or westerly direction the scene is of the sterner mould, for Snowdon shows her grandest front, and the long sweeping ridge carries one's eye round by the shattered crest of Crib y Ddysgl to the beginning of the pinnacled ridge of Crib Goch.

Should the walk around the "Horse-shoe" be made, and there is hardly a finer mountain ramble anywhere, it may begin with the crossing of Lliwedd from Lliwedd Bach, and passing over Snowdon, then by way of Carnedd Ugain to Bwlch Goch, which is the grassy *col* between Crib y Ddysgl and Crib Goch. The famous pinnacles soon attract attention, and some amusing scrambling can be had by threading the

way amongst and over them in order to continue along the well-known ridge itself.

The Crazy Pinnacle stands a little away to the left of the main mass of the mountain, and on the near side it is easy to gain the summit from the little *col* which separates it from the other crags. The height of the climb from there is only about 12 or 15 feet, and the hand- and foot-holds are plentiful. The Pinnacle can also be ascended straight up "The Nose" from Cwm Glas, but the rocks are very friable in places, and the climb is scarcely ever persevered in, because there are easy ways available on either side of the arête.

In climbing circles a heated controversy once took place concerning the origin of the name of this pinnacle; some said that it was due to the looseness of its structure, others because of its peculiar appearance from certain points of view, but a non-climber cynically suggested that its name has been gained from those crazy people who ascend it.

There is an interesting gully running up the crags immediately to the left of the Pinnacle (looking up), and it is known as the Crazy Pinnacle Gully. There are two branches of it in the lower part; that to the left involves the surmounting of a very fine chock-stone pitch, whilst the right-hand branch is rather more difficult and contains two entertaining chimneys.

These two branches unite in a small amphitheatre below the summit, and there are three different ways of finishing the climb. That to the right leads to the *col* below the easy side of the Crazy Pinnacle; the central one, by means of a simple little pitch, is the quickest and easiest; but the exit to the left is preferable, as it possesses sound rock and provides excellent sport.

The finest climb on Crib Goch for an expert party is the prominent buttress that forms the easterly retaining wall of this Crazy Pinnacle Gully. This is known as the Crib Goch Buttress. The course begins up some easy, slabby rocks, rising from Cwm Glas to the vertical and almost overhanging "nose" of the buttress. During the first ascent this overhanging part forced us away to the left and up some steep chimneys. Thence by a sensational traverse back to the right we gained the final part of the buttress above the overhanging portion. The

finish consisted of about 60 feet of exposed buttress work, the lower part of which was only rendered possible by the leader receiving a shoulder from the second man of the party. This would generally be advisable, as this long final stretch is likely to try the lasting powers of most leaders, and no exertion should be wasted.

To return to the details of the ordinary main ridge of Crib Goch, it will be observed that when the shattered pinnacles are passed, the crest of the ridge becomes very narrow, with more or less steep precipices on either side. That on the Cwm Glas or left-hand side, in the direction of our imaginary progress, is really precipitous, and it has struck terror into the hearts of many tourists.

The actual crest of the ridge is less than an inch wide in some places, but as a rule it is weathered into various breadths and shapes. The narrow part continues for over a hundred yards, so to many people it is somewhat of a feat to traverse it Blondin-like from end to end. As ordinary pedestrians often essay the passage of Crib Goch, it is no uncommon event to see them crawling along ingloriously on all-fours, and converting what should be an ordinary walk into a painful "stomach traverse."

The most feasible way of passing this famous *mauvais pas* is to move along in as upright a position as possible on the splendid footholds that are always available on the southern side of the ridge, whilst the hands can be used to steady the balance by gripping the narrow crest of the ridge. In a very high wind this part of Crib Goch might prove really dangerous, whilst if covered with ice and snow it provides entertainment for even an expert party.

After arrival at the cairn which stands on the peak of Crib Goch, the route of descent usually follows a zigzag course in an easterly direction down to the Pig Track near Bwlch Moch. Thence a well-marked path, which nowadays is further accentuated by cairns, leads down and across to the top of the Llanberis Pass, near the Gorphwysfa Hotel. This same track in the opposite direction skirts round the lower slopes of Crib Goch and joins the ordinary pony track up Snowdon near the copper mines, or about half-way up the zigzag path above Glaslyn. This track is well known to

mountaineers, and its use enables the ascent of Snowdon or the approach to its crags to be made in quick time.

Returning to the summit of Crib Goch it may be noticed that another somewhat narrow ridge runs down in a northerly direction towards Llanberis Pass, and after some indefinite progress it ends, roughly speaking, in some steep cliffs near the famous Cromlech Stone. In its upper part this affords a pleasant downward route, and when it broadens out to a long, grass terrace, which runs around into Cwm Glas, some cairns will be seen leading in the opposite direction. These mark the way from Cwm Glas to Gorphwysfa or Pen y Pass, and the path joins the Pig Track a short distance before it emerges near the hotel.

But continuing down the northerly ridge of Crib Goch to the coach road in the Pass of Llanberis some grand rocks will be seen forming its termination. These are known as Dinas Môt (the Hill Fortress); and, as they stand so conspicuously at the entrance to the pass, the name is most appropriate.

The crag has a nose-shaped appearance, and though the crest of it has never been ascended throughout, there are several ways leading up it on either side. The best of these are on the side facing Llanberis, and that containing a great jammed boulder "as big as a church," presumably one of the Welsh mountain variety, is the favourite attraction to climbers. There is a curious hole behind the great jammed boulder which provides the best exit from the pitch.

An obvious, deeply-cut ravine pierces the crags a few yards further to the south, or nearer Cwm Glas, and this is called the Black Cleft. Its ascent is extremely difficult, and one pitch, about half-way up, is dangerous on account of an intrusion of unreliable rock which almost possesses the consistency of thick mud. With this exception, the rocks of which the other five or six pitches are formed are sound, though inclined to be moist in unsettled weather.

The views into Cwm Glas from Dinas Môt are most alluring. The well-known Parson's Nose towers upwards at the top of the famous Cwm and offers a magnificent route to the crest of Crib y Ddysgl. The "Nose" is the most popular climb in North Wales; the habitués of Gorphwysfa and P.Y.G. apparently never tire of visiting it and taking casual

friends with them. Why such a name was bestowed upon it is rather puzzling, for to assume its resemblance to an ecclesiastical nasal organ is neither appropriate nor flattering. A certain "walking parson" of long ago is vaguely supposed to have visited the place, but the suggestion that the name has been bestowed as a set-off against that of the Devil's Kitchen seems as reasonable as any other theory.

The most interesting climb on the "Nose" goes directly up its front, turning neither to right hand nor left. In bad weather it has been suggested that large handkerchiefs should be carried if this route is to be attempted. The hand-holds are small in places and may need wiping, for, if afflicted with cold, the "Nose" is usually wet and uncomfortable.

Less than 200 feet above its base the lower crag is divided from the main mass by a conspicuous cleft, but no serious difficulty is met with whilst negotiating the passage of this place. This cleft can be reached by either of the two gullies that run up from the east or west side of the "Nose." That on the latter side possesses the more difficult climbing, but the western gully contains more striking rock scenery. Above the cleft the rocks are more broken, and it is soon possible to proceed by a variety of routes.

The mountain which bounds Cwm Glas on the west is called Cynr Lâs, and one of its lower buttresses projects into the Cwm some distance below the Parson's Nose. Seen from below it appears as a huge horn-shaped rock, and the interpretation of the Welsh name as Grey Horn seems most appropriate for this wonderful buttress. It is unmistakably steep throughout; in fact, at several places, the cliff overhangs considerably. The most impressive feature of it is the remarkable narrow gully which divides its huge slabby face into two sections, and the complete ascent of this has only recently been completed. Thus it will be gathered that the place possesses genuine difficulties, and our successful ascent was only made after a previous failure.

The course begins up the right wall, until it is possible to effect a lodgment, by means of a safe traverse, on the steep smooth rocks that form the bed of the gully. Two distinct pitches are then negotiated, until a corner is reached where the main bed of the chimney takes a curious twist to the right.

Earlier parties who visited the gully made an exit here to the left, up some fine slabs that gave exhilarating climbing, until a broad grass ledge was gained below a steep chimney that cuts into a subsidiary buttress rising from the ledge. The ascent to the top of the crags was finished up this buttress where the rocks are of a satisfactory quality throughout.

The direct ascent of the gully from the divide, after a sharp turn to the right, enters a narrow, well-defined chimney, which, at the commencement, was dangerous and difficult on account of loose rock. However, this portion was short, and the rocks soon became firm and quite as reliable as those in the lower section of the climb. A capacious cave pitch dominated the steeper portion, and, after passing this on the left, some enjoyable scrambling led over two interesting pitches into another larger cave below the immense boulder which formed the final obstacle. This proved less formidable than its appearance indicated. By backing up between the narrow rock walls and outside the great chock-stone, it was possible to gain a considerable height, from whence an easy swing across to the right wall rendered the scramble out above the obstacle a simple matter, though the prospect downwards into the bed of the gully made one move thoughtfully and circumspectly.

There are other shorter and easier courses on Cynr Lâs, for instance the Chasm, which is a black-looking cleft some distance to the left of the Central Gully, and, starting at a lower level, affords splendid practice. The continuation of this by the Little Gully in the upper crags is the best climb in this direction. The middle pitch in this course is unique and has the appearance of being unsafe. The chimney is narrow and overhangs slightly, but its direct attack is prevented by a huge flake of rock, that has fallen from the side and become jammed in an upright, insecure-looking position across the chimney. It is scarcely wise for a large party to visit this place, for, should this great rock fall during the ascent of the leader, it would sweep all those below from their holds.

A few remarks might be useful regarding the gullies and routes on the Peak of Snowdon itself, or, more correctly speaking, on Clogwyn y Garnedd y Wyddfa; and at the outset it must be said that none of these provide really enjoyable and

satisfactory climbing. The rock is peculiarly variable in quality, loose and firm sections alternating most curiously. But the worst feature of Clogwyn y Garnedd is the superabundance of vegetation. Probably botanists would say that this is its best feature, but, judged by the number of accidents that have happened there to over-zealous specimen-hunters, its presence on such a deceptively dangerous precipice is not an unmixed blessing.

The descriptions in the Hotel Visitors' Books of the various routes that have been made up these crags are singularly confusing. This could be avoided somewhat, if climbers recognised the fact that, instead of the crags being situated altogether on the north face of the peak, there are almost as many on the side of the peak which faces in an easterly direction.

An indefinite buttress of fairly satisfactory rock separates the two faces, and almost in the centre of this rises the most famous and popular gully on Snowdon. It has several names, but the Great Gully seems the favourite one. The ascent is not very difficult, but there are several short pitches where it is necessary to use the hands as well as the feet. There is a really fine-looking cave pitch which stands at the top of the section containing the real climbing, and it is generally passed by creeping through a slimy, tunnel-like hole behind the great jammed boulder. Thrilling descriptions have been written about this place, which, it is said, can only be conquered if the climber is lightly built, and even then an "indescribable squirming twist of the body is necessary."

There are four more or less well-defined gullies on the eastern face, overlooking Glaslyn, and those nearest to Bwlch y Saethau possess a number of indefinite but easy pitches. There are two difficult gullies near the centre of the face, but neither can be recommended except to experienced parties; in fact one of them, the "Lost Gully," has not yet been climbed throughout.

On the Northern Face numerous couloirs and gullies are visible, but as a rule they are either ridiculously easy or extremely difficult. Except in the winter time, those near the centre of the face are best avoided, on account of the débris that comes down them.

When the mountain is bound in winter's icy grip, and the summer crowds who haunt the summit hotel are safe at home, revelling in front of warm fires, and amongst more congenial surroundings, there is excellent practice on the frost-bound crags and snow-filled couloirs. This is the best time of year for the mountaineer to visit Snowdon itself, for he will find many of the couloirs present opportunities on a par with those of that well-known Cumbrian favourite, Great-End.

Until quite recently the western side of Snowdon had been neglected by rock-climbers. Though there are no crags in the vicinity to compare with those of Lliwedd or Cwm Glas, a pleasant holiday could be spent for a few days at the Snowdon Ranger Inn. This is at present the best centre for this district, though simple accommodation can be found at the terminus of the North Wales narrow gauge railway.

The bulk of the interest, as far as climbing is concerned, is centred hereabouts in the crags of Mynydd Mawr. The Castell Cidwm on this mountain is near the inn and looks well from the shores of Lyn Quellyn. There are two or three short but steep gullies, and the rocks are generally firm and dry. Craig y Bera, on the south side of Mynydd Mawr, possesses the finest climbing and rock scenery in this neighbourhood. There are some unique ridges, but the most westerly of them is very rotten in places; in fact, Craig y Bera throughout is a curious mixture of good and bad rock.

The most striking precipice on the west side of Snowdon is that of Clogwyn d'ur Arddu, its black crags towering above the romantic little Llyn with forbidding steepness. This famous Cwm is often approached from Pen y Pass by way of the Snowdon "Zig-zags"; but the quickest and best way from that centre is by the Cwm Glas track across the north shoulder of Crib Goch, and thence over the grassy slopes of Cynr Lâs, that lead the climber out a short distance above the Clogwyn Station on the Snowdon Railway.

From there an easy descent leads to the foot of the cliff, and from the northern shore of the Llyn the topography of Clogwyn d'ur Arddu can best be seen. The central section, also known as the Eastern Cliff, forms probably the most inaccessible crag of its height in Wales; for, though the rocks are firm, it is too continuously smooth and vertical to attract thoughtful

mountaineers. On each side of this portion there are peculiar breaks in the cliff; that to the west forms a curious sloping terrace, whilst the one to the east begins mildly but finishes up a gully of "terrific aspect." This possesses some dangerously loose sections, which can be avoided by scrambling up the indefinite slabs to the left. There is some doubt whether the Eastern Gully has been climbed throughout, though there is a rumour that the late Owen Glynne Jones took a party directly up it.

At the other side of the Eastern Cliff is the Eastern Terrace, which can be climbed without serious difficulty, and if any is met with there will be no trouble in making a way up the slabs to the left. These slabs culminate in a narrow ridge above the Eastern Gully. The view down into its depths from this overhanging wall is thrilling in the extreme, and the place is well worth a visit for this experience alone.

About half-way up the Eastern Terrace there are several fine chimneys in the vertical right wall of the Western Cliff. One of the most easterly of these rifts was ascended in 1905, and cairns mark the beginning and end of the course. With this exception the Western Cliff has been almost neglected by climbers, though it may be mentioned that the traverse along the Western Terrace, which runs obliquely up the crags, from near the beginning of the Eastern Terrace, affords an easy way out of the Cwm.

Taken on the whole, the climbing on Clogwyn d'ur Arddu is singularly indefinite and uninteresting, considering the size of the crags, but the views from their recesses are weird and striking in the extreme. On this account they are well worth a visit, and if generations of mountaineers to come improve their climbing powers to such an extent that the great slabs of Lliwedd grow stale and uninteresting, they will find pleasure in wrestling with those terrific, central crags of Snowdon's finest Clogwyn.

CHAPTER XIV

CLIMBING IN NORTH WALES—THE CARNEDDS, Y TRYFAEN AND THE GLYDERS

“ A land of old, upheaven from the abyss
By fire, to sink into the abyss again ;
Where fragments of forgotten peoples dwelt,
And the long mountains ended in a coast
Of ever-shifting sand, and far away
The phantom circle of a moaning sea.”—TENNYSON

THE frequent mention of caves and cave pitches in British climbing literature would indicate a partiality on the part of the climber for routes that possess these characteristic features. This tendency may possibly have descended from our ancestral cave-dwellers, and there is a curious feeling of familiarity about some of these mountain caves, even though they are situated on virgin climbs, untrodden previously by human foot. The temptation is present to ask the question formulated by a popular newspaper, “Have we lived before?” but we must forego the weird idea, and revert to more practical matters.

The little cottage at Ogwen, which, being translated, means the White Cave, is one of the most favoured climbing centres in North Wales. It would not be judicious to say that this very appropriate name greatly influences its popularity, for it has many more tangible charms and advantages. All the mountains dealt with in this chapter are easy of access from Ogwen Cottage, and its creature comforts would put to shame all the domestic luxuries of our ancestral troglodytes, if certain “prehistoric peeps” convey a correct idea of those early times.

True it is that ancient custom still lingers to some extent in this Celtic mountain retreat. For instance, the hungry climber will probably start on a sheep and have to work steadily through it and succeeding relations, unless a change of diet

is tactfully suggested to the fair genius who directs the culinary operations. However, this is a minor matter, despite the words of a poetical wag who wrote in a Local Visitors' Book regarding the prevalence of Welsh mutton at meal times—

“ This dose you'll more or less repeat
On each successive day,
Till when you meet a mountain sheep
You'll turn the other way.”

Personally, the most enjoyable mountain holidays I have ever spent have been at Ogwen Cottage. The proximity of the climbs conduces largely to the pleasure of a visit to this corner of North Wales. The rocks that form the end of the Gribin ridge are practically the backyard wall of Ogwen. As a friend once aptly said, “You can step out of bed on to the rocks”; and, though this is scarcely quite applicable nowadays, before the alterations were made it was possible to reach the rocks from one's window-sill.

Many famous climbs can be reached in half an hour or less from the cottage door. The Milestone Buttress, the Western Gully on Tryfaen, the Slabs of Idwal, the gullies near Twll Du, and even the famous Devil's Kitchen and the Monolith Crack, are only a few of these which might be mentioned.

Thus in bad weather a fine afternoon can often be utilised. Those who have been kept indoors by wet and stormy weather may grow somewhat weary of watching the mist and rain driving across the shattered crags of Braich Du (The Black Arm) of Carnedd Dafydd. But a fine afternoon or evening may be profitably spent exploring the complicated series of ridges and gullies that show up so conspicuously from the road down the Nant Ffrancon (The Valley of the Beavers).

There is one ridge in particular that can be easily distinguished from the sharp bend in the main road just beyond the bridge over the Ogwen Falls. It resembles the Arrow-head Ridge on Great Gable from this point of view; and though the similarity disappears somewhat on closer inspection, the place is worth climbing, if some of the loose rocks are carefully handled.

Still farther down the Pass there are two well-marked



Abraham

THE DEVIL'S KITCHEN, WITH LLYN IDWAL AND OGWEN LAKE BELOW

gullies which are easily located, because they rise above the eighth milestone from Bangor. Neither these nor other fancy routes on Braich Du should be considered as serious climbs, for most of the difficulties can be readily avoided by a *détour* to one side or the other, and the gullies are generally too abundantly filled with water and vegetation.

But the structure on the opposite or northerly side of Carnedd Dafydd is entirely different. There the grand cliffs of Cefn Ysgolion Duon, or, as Englishmen prefer to call them, the Ridge of the Black Ladders, shoot up from the grass terraces at the head of Cwm Llafar with remarkable steepness. This long Cwm—the Valley of the Echoes—sweeps down from the *col* between the two Carnedds amidst the wildest of mountain scenery, and terminates amongst the miners' ugly cottages and slate heaps near Bethesda.

Many tourists approach the Carnedds by this long, weary route, but climbers staying at Ogwen or thereabouts will be glad to know of a better means of approach. About two miles down the Nant Ffrancon Pass, on the Bethesda side, the small farmhouse of Ty Gwyn is noticed, and a gate leads past this, the first habitation encountered after leaving Ogwen, and out through another gate on to the fell-side. There, an old grass-covered cart-track zigzags upwards, and soon takes a wide sweep to the left. This track rises gradually and eventually leads round the long grassy shoulder that runs down in a westerly direction from Carnedd Dafydd. After contouring round this, and mounting upwards into a large, grassy valley of the moorland variety, a prominent *col* is seen ahead, quite high up and near the top of another grass ridge that runs in front of Cwm Llafar.

At this *col* there is a sudden glimpse across the wild craggy face of Carnedd Dafydd. By traversing along amongst the broken rocks, at first, at about the same level as the *col*, and later, slightly downwards, an interesting scramble, somewhat like the High Level walk on the north side of the Pillar Mountain, leads over some intervening ridges, and ere long the Black Ladders are visible in all their grandeur.

From our present standpoint the great Western Gully is the most striking object in the landscape. Almost its entire length is visible, and three deep, black-looking pitches break

up the continuity of its steepness, though only partially, and its vertical appearance conveys a distinct idea of difficulty. This opinion will probably be corroborated on closer inspection, as it contains more severe climbing than Moss Ghyll on Scawfell, and considerable skill is required to make the ascent safely.

In fact the middle section still remains unconquered for about 20 feet. During the first ascent we were compelled to leave the gully for a short distance and traverse back above this formidable overhanging portion. The obvious black recess immediately above this section marks the position of the great cave pitch. Situated as it is in the middle of one of the most vertical of the longer Welsh gullies it may safely claim equal merits with the famous cave on Craig yr Ysfa. One huge overhanging boulder practically forms the main roof of the cave. Its outer edge overhangs several yards, and a stone dropped from above falls clear of several of the lower pitches and straight to the bottom of the climb.

But how to overcome the pitch will interest climbers who visit the vicinity. We made the ascent by means of the steep rock slab which supports the roof of the cave on the right, where the hand- and foot-holds are just sufficient to render the passage possible. If ice were present it would scarcely be justifiable to persist in the ascent beyond the bed of the cave. There are still at least two interesting pitches in the higher part of the gully, which terminates on the long almost level plateau near the top of Carnedd Dafydd.

To the left of the Western Gully, looking up the Cwm, the curious formation from which the cliff probably gets its name will be best observed. Huge, black, rocky steps rise tier on tier to the skyline, and the top of each rise is crowned by a long, narrow stretch of delicately-tinted vegetation, stretching apparently right across the precipice. From below, these ledges appear to offer easy progress along the face, but on actual acquaintance they prove rather indefinite and slope uncomfortably in the narrowest parts. This great ladder-like buttress with its cyclopean steps has not been climbed throughout, and an excellent opportunity of distinguishing—I had almost said extinguishing—themselves awaits a party of experts.

Still farther to the left, the Central or Bending Gully occupies a prominent position; it is situated in the corner of the cliffs where they take a bend in a northerly direction, and the one large pitch about half-way up is the characteristic feature of the climb. The gully really starts at a much lower level than its more fearsome-looking, westerly neighbour, but the introductory pitches are more difficult than they look. The first one at least had better be passed by clambering up some grass ledges on the left. It is very doubtful whether the great, central pitch has ever been climbed direct. The usual route is up the left wall, whence a traverse can be made back into the gully when sufficient height has been gained. However, this route involves the negotiation of much uninteresting "vegetable climbing," and though the botanist may enjoy the experience, the best course lies straight up an interesting ridge of rock that forms the left wall of the gully.

Another steep, ladder-like buttress, also unexplored, separates the Central Gully from its eastern neighbour. This latter climb is of an easier kind, though the beginning requires a knowledge of mountaineering to find the simplest route. Higher up several small pitches offer no serious resistance to the climber; and still nearer the *col*, between the two Carnedds, there is much scrambling of the desultory order. The same remark would apply to the western end of the Black Ladders, but there the crags are on a larger scale, and a careful search might possibly result in the discovery of some excellent new routes.

One of the most curious features about Welsh mountaineering has been the neglect of the Carnedds, and it is only within the last two years that rock climbers have treated these crags seriously.

The long, uninteresting grassy slopes that these mountains show to the traveller who walks along the popular route from Capel Curig to Ogwen has doubtless led to the impression that the rest of the range is simply composed of the same huge, grassy mounds. But the north side of the Carnedds is as wild and rugged as the southern slopes are tame and monotonous. Next to Lliwedd, Craig yr Ysfa is the finest precipice in all Wales.

The idea has become general that the climbing on the Carnedd is difficult and lengthy of approach, but either Ysgolion Duon or Craig yr Ysfa can be reached from Ogwen Cottage in $2\frac{1}{2}$ hours moderate walking. The latter is still more easily reached if a party should make the little farmhouse of Gwern-y-gof-isaf their centre. This is almost half-way between Ogwen and Capel Curig, and the foot of the climbs on Craig yr Ysfa can be attained from thence after an hour and a half of pleasant walking. If domiciled at Ogwen it is best to come almost as far as this farmhouse before taking to the open fellside. The route lies up over the moorland, along the eastern shore of Ffynnon Llugwy, and then it is advisable to aim for the *col* to the right of the little summit that rises from the ridge between Carnedd Llewelyn and Pen Helig Ddu (Peak of the Black Willow). This small peak, though as high as Cader Idris, is not marked on the Ordnance map, but it is known locally as Pen y Waen Wen, or the Head of the White Meadow. Craig yr Ysfa lies on the farther side of this peak, but from the *col* previously mentioned, which is the lowest point of Y Crib, the crags are only partially seen, though the prospect northwards into Cwm Eigiau (the Valley of the Abysses) is distinctly impressive.

To gain a better idea of the cliffs a scramble over the top of Pen y Waen Wen is desirable, and this is now the more interesting, because cairns mark the top of each climb. After clambering over some easy, slabby rocks we soon emerge on the summit ridge, and sundry glimpses down the rocks on the right make one realise that there is a steep and sudden drop into the valley below.

The first cairn encountered marks the top of the easiest course on the face. This is known as the Pinnacle Gully, on account of a peculiar slab of rock which stands prominently on the right wall. The next opening is the Arch Gully; the huge rock which bridges it half-way up makes it unmistakable. This is a moderately difficult route, and the crux of the climb consists in surmounting the 40-foot chimney immediately below the Arch. The view out from the Gully at this point is one of the finest bits of rock-scenery in Wales. The next portion of the summit line of the cliff

is rather lacking in character from the climber's point of view, but the ordinary visitor should crawl gingerly out to the edge and peep over into the depths of Cwm Eigiau. Then he may possibly realise the aptness of translating Craig yr Ysfa as the Crag of Craving. It is a weird feeling to cast the eye in one sweep over this apparently sheer precipice. Even a seasoned mountaineer might feel the peculiar sensation which such a giddy situation induces; and it is an easy matter to realise that strange feeling of craving for the unknown which some romantic pedestrians say they feel in such places.

However, we must not linger too long in this uncomfortable position; but, after gaining the grass-covered crest of the Pen, pass along by a cairn which marks the finish of the Bending Gully—a fairly easy course. Just beyond this point there is an interesting view down into the tremendous chasm which seems to divide Craig yr Ysfa into two sections. This is a unique feature of the mountain, and is now known as the Amphitheatre.

Following the crest of this we cross the top of the Avalanche Gully, so called from the great rock-fall which recently carried away part of the right wall. There is a difficult pitch in the lower section, but the upper part is simply a scramble up vast masses of boulders and débris. The final chimney is disappointing, for the rock might be best described as a cunning conglomeration of slate and mud. Fortunately, it is not steep, or its friable structure would make its ascent impossible.

The next cairn locates the end of one of the best climbs on the mountain, or even in all Wales, and that is the Amphitheatre Buttress. From below it seems to rise directly out of the Amphitheatre in a smooth slabby formation, but from our present imaginary vantage point it has the appearance of a striking, rock pillar. The upper portion requires careful treatment, but lower down, on the face of the Buttress, there are two exciting corners, one of which proved too severe for some of the early explorers.

Four cairns are next passed in quick succession, which stand at the respective exits from the Amphitheatre Gullies, A, B, C, and D. The foremost of these is somewhat grassy

and offers no great difficulties, but the others are only to be recommended to expert parties.

As we move westwards the terrific sweep of the left retaining wall of the Amphitheatre obtrudes upon the view, and it will be noticed that for a few hundred feet it is rather steeper than perpendicular. It is likely to remain unclimbed from this side. But on its face fronting Cwm Eigiau it assumes a milder aspect, and the Great Buttress, as it is called, offers about 800 feet of moderately stiff exercise. It is preferable to begin from below in an obvious gully that cuts into the face of the crags. This is called the Vanishing Gully, because it gradually narrows higher up and eventually disappears after a difficult chimney has been ascended.

The last cairn is the most important of all, because it indicates the top of the most interesting course on Craig yr Ysfa, the Great Gully. This is the finest climb of its kind in the Principality, if not in all Britain. There are ten pitches in all, and three at least will try the powers of the most expert leader. Several parties have had exciting adventures here, and one at least had decided to spend a night out below the Great Cave Pitch at the summit. However, some companions had luckily walked round to the top with a spare rope and a lantern, and, as the leader of the climbing party expressively put it, "We did the stirrup-trick, and were hauled out of the pitch." It should be understood that this gully starts about 200 feet above the base of the main line of cliffs, and round a corner to the right of the Great Buttress. This is mentioned because it is an easy matter to mistake the more obvious beginning of the Vanishing Gully for its more important neighbour. The error will scarcely be discovered until some distance has been climbed, and several climbers can testify to the disappointment of missing the Great Gully and having perforce to remain satisfied with the Vanishing route up the Great Buttress.

The crags became broken and indefinite to the west of the Great Gully, and the only other feature worth special mention is the Craig yr Ysfa Pinnacle. This must be nearly 100 feet high on the longest side, and the traverse from



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THE UPPER CAVE PITCH IN THE GREAT GULLY ON CRAIG YR YSFA
THIS CONVEYS A GOOD IDEA OF A TYPICAL BRITISH ROCK GULLY, WITH THE LARGE, JAMMED
STONES PLAINLY SEEN

the north-east to south, if the Alpine term may be pardoned, affords a very neat problem.

It is a good four hours' walk from Ogwen to Cwm Dulyn, and, though the magnificent scenery is worth a walk of double the length, it is a disappointing place for the rock specialist. It is best approached by crossing the Bwlch Hên, or Fairies' Gap, which lies just west of Craig yr Ysfa, and, after traversing round the head of Cwm Eigiau, and across the hollows above Melynllyn, the dark waters of Llyn Dulyn are soon visible far below.

It is worth the descent to the foot of the lake to get the effect of the manner in which the great central cliff in the Cwm descends sheer into the black depths of the water. I doubt whether a mountain sheep could walk completely round the shores of the Llyn.

But the genus *homo* has the advantage which hands give in such places, and it is possible to climb the steepest portion without serious difficulty. As a matter of fact, the cliff yields no definite climbing route, but affords an excellent place where those who are also experts in natation can practise a series of high dives of varying severity.

There are other crags on the Carnedds that await the ardent explorer; for instance, that comely dependency of Carnedd Llewelyn yr Elen (the nymph) and the north side of Foel Fras both promise excellent sport.

The climber who spends much time on the Carnedds must be sadly lacking in appreciation of beauty in mountain form if he fails to be attracted by the appearance of Y Tryfaen as seen across the narrow vale of Nant Ffrancon. The shapely peak looks its best from the slopes of Carnedd Dafydd whilst descending to the head of Llyn Ogwen, and if seen in the morning light it towers up like a huge, black, rocky mass, tapering away at the summit to an almost perfect cone.

If Lliwedd and Craig yr Ysfa are the haunts of the expert, then Tryfaen may justly pose as the happy hunting-ground of the novice. There are, of course, many difficult parts on the latter peak, but, as a rule, the regular courses are suitable for moderately strong parties.

Speaking from the ordinary tourist's point of view, it may

be noted that Tryfaen is one of the few mountains south of the Tweed that does not possess an easy walking path to its summit. In fact, in misty weather it is possible for even an experienced party to get into serious danger amongst the great rocks and short subsidiary ridges that radiate from its rugged crest. Under such conditions the way down to Ogwen from the two curious rocks that form the cromlech-like summit is awkward to find. Many accidents have happened through losing the way, but a party possessing a compass will avoid serious trouble if they remember that the main summit ridge runs practically due north and south. The most dangerous cliffs are on the eastern or right-hand side whilst descending the north ridge to Ogwen.

The following curious experience will serve to show that Tryfaen needs treating with respect in bad weather. It was Easter-time, about six years ago, and I formed one of a party of four who, in a dense mist and howling north-easterly gale, arrived at the summit stones after a long climb over snow-covered rocks on the east side. Two friends carrying our lunch had ascended by an easy and circuitous route and had promised to await us at the top. The adverse conditions of our climb had thus been cheered by the expectation of sumptuous refreshment on our completion of the ascent; but, though we found ample traces and some curious half-obliterated hieroglyphics in the summit snows, neither friends nor lunch were visible. Our anger and disappointment were great, and we unanimously denounced the deserters. Our hungry state led us to choose the quickest way down to the Ogwen Valley, and in the thick mist, we followed fresh footsteps in the snow which we thought were those of our lunch-bearers.

Ere long we had passed over the North Peak, and someone suggested that, though the footsteps were still by us, we were descending by the wrong ridge. After a consultation we luckily decided to continue our route, and trust to an hour of daylight and our climbing knowledge to extricate us from the crags. The difficulties increased, and the mist grew thicker, until we suddenly arrived at the end of our ridge, and an apparently bottomless precipice yawned at our feet. Those in front of us could not be far away, and a united

shout called forth a feeble response from a ledge away to our left.

We traversed carefully round, and a tremendous surprise was ahead of us, for, instead of our faithless friends, we found two tourists who had lost all hope of ever seeing the valley again, and had our party not arrived on the scene they would probably have fallen from the treacherous snow-ledge along which they were creeping. Our excitement was intense when we saw their danger, and we bade them not move until we could lower a rope and assist them up to our place of safety.

It is unnecessary to tell of their effusive gratitude; suffice it to say, that we had to retrace our steps to the main ridge as darkness came on, and, by the aid of the feeble light given by a folding lantern, we eventually reached the valley safely, very hungry and much fatigued. At the little farmhouse by Llyn Ogwen we met our friends' anxious inquiries with heartless denunciations, and demanded our lunch. They declared they had left it on the top of Tryfaen with an arrow drawn in the snow to indicate its position. The lunch was certainly not there when we reached the top; but our enlightenment came at length when the two tourists whom we had rescued confessed in some confusion that their love of a practical joke had tempted them to eat our food. Friendly relations were somewhat strained for a few seconds, but soon the amusing nature of the adventure dawned on us, and the whole place rang with our laughter. Nevertheless, if these would-be mountaineers ever climb again, they are scarcely likely to repeat the joke.

There is much indefinite scrambling on every side of Tryfaen, but the real climbing lies on the eastern face. This is well seen as we come along the road from Capel Curig, but a detour to the left and up the slopes beyond Gwern-y-gof-isaf will reveal the details of the crags to even greater advantage. From thence the long northern ridge is seen in profile leading down to the road near the head of Llyn Ogwen. Numerous moraine heaps fill the hollow of Cwm Tryfaen at our feet, and heathery slopes lead the eye up to the vertical-looking, gully-seamed, summit rocks. Just where the really steep section begins a peculiar grass and heather ledge stretches across the face from north to south, and gives access to all the usual

courses which are marked by cairns at their bases. It should be noted, however, that there are two pitches in the North Gully below the level of this ledge.

Taking a short survey of the interesting features of our mountain and working from north to south, the first gullies to attract attention are several of the shorter variety that lead up to the main ridge, but they possess no serious interest for the climber.

The first one that contains real climbing is the Nor' Nor' Gully, and this is located to the right of the North Peak, which is the next summit nearer Llyn Ogwen than the actual top. This peak drops a splendid wall of rock over into Cwm Tryfaen, which is known as the North Buttress. It is a favourite course, and is not possessed of serious difficulty if some care is observed in avoiding the great overhanging "Nose" which at present is unclimbable. This *impasse* is about half-way up, and a *détour* is now generally made to the left for about 80 yards. A cairn marks the point where the course goes vertically upwards again until an obvious traverse leads back to a conspicuous ledge directly above the overhanging "Nose." Thence to the summit is enjoyable climbing of an easy kind.

The great rift in the face next to this Buttress is the most popular climb on Tryfaen. This is the famous North Gully; it shares with the Parson's Nose the honour of being the most frequently climbed place in North Wales. There are five distinctly interesting pitches, the last being the most difficult.

The Central Buttress next requires attention, and there are several different ways up it. The best defined of these begins at the cairn about 12 yards to the right of the foot of the South Gully, which is the wide chasm bounding the Buttress on its southerly or left-hand side. About 200 feet above the cairn an unstable-looking pinnacle locates the route up an engaging slab just behind it (see illustration opposite). The course finishes up a steep chimney built in two sections, and the place will provide fine practice in the "back and knee" method of ascent.

The South Gully calls for small comment. It is too wide and complicated to afford any definite route, and any of the difficult pitches can be avoided by scrambling up one side or the other.

The well-marked ridge which forms the left-hand retaining



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ON THE CENTRAL BUTTRESS OF TRYFAEN

wall of this gully is called the South Buttress, and as a definite rock-climb it is one of the neatest of all on Tryfaen. The course begins at a cairn about 30 yards to the left of the foot of the South Gully, and it continues practically straight ahead with a slight inclination to the right in order to keep on the sharp ridge that almost overhangs the bed of the neighbouring gully.

The western side of the Tryfaen is rather lacking in character. There are plenty of slabs and short gullies, but none of them can be considered seriously, though an enjoyable day can be spent exploring and unravelling their complications.

The Milestone Buttress is situated slightly on the western side of the long north ridge. It affords an excellent climb of its kind, and has the advantage of being within a few minutes' walk from Ogwen Cottage. The buttress rises directly above the tenth milestone from Bangor, and the cairn at its foot can be gained five minutes or so after leaving the main road. When the buttress eventually disappears amongst Tryfaen's characteristically heather-covered slabs some amusing problems can be discovered amongst the shattered rocks away to the right.

The Glyder group can be considered as the "backbone" of the central Welsh mountain mass, and may roughly be said to extend from Elidyr Fawr on the north-west to Glyder Fach on the south-east.

With the exception of the long ridge of Esgair Felen (the Yellow Shank) which stretches in a south-westerly direction from near the top of Glyder Fawr and terminates somewhat abruptly in some fine rocks above the Pass of Llanberis, all the ambitious climbing is situated on the northerly side of the range. Thus Ogwen Cottage is usually preferred as a starting-point for these excursions.

However, it may be noted that most of the crags can also be gained in two hours' easy walking from Pen y Pass or Pen y Gwryd, though this of necessity involves the crossing of the range, preferably at one or other of the *cols* or *bwlchs*. For Glyder Fach the best way is to follow the old miners' track which starts just behind the Pen y Gwryd Hotel and leads round the shoulder of the little Glyder to Bwlch Tryfaen. To reach the face of Glyder Fawr or the neighbouring climbs on and around Twll Du, the habitués of Pen y Pass usually make

for Bwlch Blaen-Cwm Idwal. A few yards farther from here, after passing by the shores of the small lake Llyn y Cwn, there is a magnificent glimpse down the awesome-looking gorge of the Devil's Kitchen, or, to give it the native name Twll Du (The Black Pit).

Its ascent proper, without aid from above, has only been made four or five times, and this is easily accounted for, because, besides possessing considerable technical difficulty, the rocks at critical places are dangerously loose. The spray from the waterfall also usually fills the gorge with moisture, and the lower part of the climb, at least in its normal conditions, is wet and slippery. There is no serious difficulty in clambering up the gorge as far as the bottom of the fearsome-looking final pitch; and a fine view of the route used for completing the ascent can be obtained from the "Look-out Pinnacle." Climbers visiting the Kitchen would be well advised to make the ascent of this, and, after surveying their surroundings, return the way they came.

The truth of the matter is that Twll Du is not to be recommended as a reasonable climb for ordinary experts. Several minor mishaps have occurred, and furthermore three valuable lives have already been sacrificed through attempting the conquest of the final obstacle.

The famous chasm has magnificent cliffs on either side of it. These are seen to advantage from the slopes that stretch down from near the Bwlch of the bulky name to the shores of Llyn Idwal. To the left, looking up, the rocks are for the most part unreliable and covered with wet vegetation. On the right it is quite different. Great felspathic bastions rise vertically for upwards of 400 feet, and two conspicuous cracks cleave them from base to summit.

The nearer neighbour to the right of the Kitchen is the Devil's Staircase,¹ and its ascent is only suitable for experts. The other gully in the same direction possesses the name of the Hanging Garden, and those who climb it will agree that its wealth of botanical rarities justifies its being named after the famous Babylonian wonder. This course is more suitable for moderately skilled parties than its neighbour, but the final pitch requires circumspection.

¹ A recent rock-fall has simplified this climb.

There are three obvious gullies in the north face of Glyder Fawr as seen from the shores of Llyn Idwal. All are moderately difficult. The Western Gully is short, but possesses a tricky pitch in its lower section.

To complete the ascent of its neighbour, the Central Gully, it is necessary to thread the rope through a hole above and behind the great chock-stone that blocks up the cleft about half-way up its sloping bed. This hole in the roof of the cave is on the right-hand side, but it may be mentioned that the direct climb on the left of the boulder has been made two or three times without using the somewhat tiresome rope-threading operations.

The Eastern Gully is the longest climb on this front of Glyder Fawr, and if a party can manage to overcome the first obstacle under normal conditions they will find nothing higher up to stay their progress.

To the left of this wide gully there are several short narrow scoops leading up the cliff, but they are short and lacking in character from a climber's point of view.

The Twisting Gully is the best of these because it possesses a remarkable cave near its summit. It is possible to penetrate about 70 or 80 feet into the heart of the mountain, and then make an entertaining exit from the cave through a hole in its upper reaches.

Climbers staying at Ogwen will probably approach the north face of Glyder Fawr by way of Llyn Idwal. The quickest method of gaining the foot of the gullies is to scramble up the black-looking cleft in the slabs quite close to the eastern shore of the llyn. The slabs themselves also offer an entertaining climb, starting about 50 feet to the left of the black cleft, which is now called the Introductory Gully.

The crags on the eastern face of Glyder Fawr are known locally as Clogwyn Du (The Black Precipice). There is a well-defined gully dividing the Clogwyn into two parts, and its ascent, more especially by the right fork, is not very severe. There is only one record of the great pitch in the left-hand branch having been ascended.

There is no better mountain in Wales for the climbing tyro than Glyder Fach, and almost endless routes can be made up its northern face. Wherever the difficulties grow

too trying, it is generally possible to make a traverse to one side or other, and thus discover an easy solution to the problem. It is advisable, however, for the novice to avoid one section, and that is the great introductory pitch on the Eastern Gully, as well as the difficult buttress which forms its retaining walls higher up. This great rift lies practically in the centre of the face, and contains one of the most difficult pitches in the Principality.

The ridge above it, which is now called the Hawk's Nest Buttress, rivals in interest the Eagle's Nest Arête on Great Gable, and this should be sufficient warning for even the most daring of novices.

Glyder Fach is famous as the fortunate possessor of the most remarkable mountain summit in Great Britain. This is composed of a chaotic mass of rocks and huge boulders which appear to have been thrown together in wildest confusion by some Titanic monster. It has been suggested that these rocks are the remains of a gigantic cromlech; and ancient Celtic traditions record it as the burial-place of Ebediw, one of their mightiest warriors. However, modern geologists say that natural weathering agencies are sufficient to account for the peculiarity of the mountain's crest, and climbers who have explored other parts of the mountain will be inclined to favour the less romantic theory.

The conspicuous Gribin ridge, which, roughly speaking, runs down from the plateau between the two Glyders to the shores of Llyn Ogwen, possesses some striking-looking rocks near the outlet of Llyn Idwal. Several inviting problems may lead the climber into unexpected difficulties, since the comparatively small cliff becomes treacherously steep in its higher reaches.

The Monolith Crack is the *pièce de résistance* thereabouts. The huge columnar-shaped rock that has evidently fallen from above and remained standing against the lower part of the crack, suggested the somewhat appropriate name. The vertical cracks above the top of the monolith will prove a knotty problem for any leader to solve. They are in two sections, and the upper one, which is about 40 feet high, is most suitable for a climber of lath-like proportions. It is built on decidedly narrow lines, with almost parallel straight-

cut sides, and the roughness of the rock makes upward progress extremely laborious.

It has some points of resemblance to the well-known Kern Knotts Crack on Great Gable, but I venture to suggest that several years will elapse before the Monolith Crack becomes as popular as its now famous Cumbrian congener.

Another Welsh mountain of interest to the climber is Cader Idris, though it should be understood that it is situated in an outlying group and not so accessible as the favourite peaks of Snowdonia.

Dolgelly is the best centre. There are gullies and arêtes galore, some of them yet unclimbed, and the combination of rock and lake scenery is really magnificent. The arêtes of Cyfrwy yield enjoyable scrambles, but the one nearest Llyn y Gader should be preferred, because farther to the west the rocks become rather slaty and loose.

This is an age of records, and the fall of a young tourist on Cyfrwy, a few summers ago, is not likely to be beaten for some time to come. Whilst descending, he slipped on some steep rocks and fell a distance of nearly 80 feet, without fatal results. No one is likely to wish to break this record, for such a marvellous escape can scarcely occur again.

The Central Gully on the Dolgelly side of Cader Idris is the most popular course in this district, but the much more impressive crags on the other side of the mountain afford better sport. The Great Gully of Craig y Cae, which rises directly above the little mountain llyn of that name, compares favourably in difficulty with any in the neighbourhood of Snowdon.

In conclusion, I would point out that the standard of difficulty of many of the Welsh climbs is distinctly high. This is accounted for in some degree by their newness and the presence of loose rocks. Climbers are nowadays bestowing much attention on these districts, and ere long the gullies and ridges will be swept clear of their natural débris; and thus one of the greatest dangers of Welsh mountains will be considerably modified.

CHAPTER XV

CLIMBING IN SCOTLAND

"Once more, O mountains of the north, unveil
Your brows, and lay your cloudy mantles by!"

JOHN GREENLEAF WHITTIER

THE old saying of the Campbells, "'Tis a far cry to Loch Awe," has a very practical meaning to those present-day Saxons who yearn to grip "the hardy rocks of stern Caledon." Modern facilities for travel have done much to render this remark somewhat fallacious, but the fact remains that those climbers, and they are a strong majority, who reside in southern Britain can get to the Alps more quickly and easily than to the best of the Scottish climbing centres.

This accounts to some extent for the Englishman's neglect of the far northern playground. But there are two other most potent reasons—the hopelessly scattered and isolated nature of the finest Scotch crags, and the dread of disturbing the deer-forests. The former well-known geographical peculiarity and drawback of Scottish mountain scenery is an obvious and irremediable fact, as almost every ordinary tourist knows; but the latter reason should not deter the mountaineer from following his sport.

A few words in explanation of the question of deer-forests are advisable and in fact necessary. With the exception of part of the Coolin, most of the districts visited by climbers are "under deer," and intrusion into these preserves at certain seasons will, by frightening away the game, certainly mean a direct and substantial loss to the occupier, who has to pay almost fabulous sums for the indulgence in his sport. The right to shoot a stag is estimated to be worth about £50. A fairly representative owner has written "that the time in which the hills can be traversed without interfering with the sport

consists of the months of February, March, April, and May, and during that time there can be no real harm done to the sporting interests by those who wish to visit the hills for mountaineering or scientific purposes."

Personally I have never found any trouble in this respect, even during the months of June, October, and November; but at these times it is the climber's duty to make inquiries, and obtain permission from the keepers. The free-thinking, democratic, "rights-of-way" man will doubtless object to this, and flaunt his "Access to Mountains Bill," but a little tact and gentlemanly consideration for the rights of others, probably assisted by a judicious dispensation of "bawbees" and "wee drappies of the mountain dew," will prove saner and more satisfactory arguments with these "canny," muscular, Celtic keepers of the stags.

In promoting and fostering the good fellow-feeling which exists on this matter, and for various other benefits, all mountain-lovers are indebted to the members of the Scottish Mountaineering Club. This was the first purely British climbing club to be formed. Its birth dates from the year 1889, though as early as 1866 its progenitor, The Cobbler Club, acted as a bond of union for those Glasgow enthusiasts, who spent their week-ends amongst the nearer mountain groups.

The club nowadays publishes an excellent Journal, which appears with exemplary promptitude three times a year, and, for those who wish to explore or climb the more remote Scotch peaks, the information contained in its many volumes is invaluable and quite unobtainable elsewhere.

The transition of this flourishing club from its early "hill-walking" stages to its more modern rock-climbing propensity, is characteristic. Individuals also follow the same line of development; the keen mountain rambler usually falls a victim to the "tooth and nail order." With this idea in mind it is amusing to glance at the pages of one of the earliest copies of the journal, and the following is a typical quotation from a distinguished pedestrian's effusion: "As we bowled along the smooth road beneath the grey cliffs of Stronchrubie, where the goats were picking their way along invisible ledges, the crisp morning air, filled with the music of

bird-voices,—the cheery crow of the grouse cock, the wild cry of the peregrine wheeling about the crags overhead, the whistle of curlew and greenshank along the river-flats,—produced in one that indescribable feeling of enthusiasm with which one starts for a mountain expedition in the Highlands.”

Then we turn to a recent number, and the change to the up-to-date style of an equally noted writer is decidedly striking: “We were now below the very steep wall with a vertical slit down the middle of it, at which the first party decided to traverse into the gully. This now resolved itself into a most interesting 40-foot climb up a stretch of cracked slabs, or rather piled blocks, the first of which at least requires a determined effort to surmount. Hereabouts was another hitch. The writer, who was now the beast of burden, cleverly contrived to arrange the shafts of the axes between his legs and the rock. Further complications ensued. ‘Pull!’ ‘I can’t; the rope’s caught.’ ‘It’s me that’s caught; pull, man!’ Above these blocks are about 20 feet of rounded slabs provided with but poor holds; after this the climb degenerates.”

Further engrossing extracts must be withheld; suffice it to say, that the exploration of the Scottish climbs is in worthy hands, but many years or even generations must elapse before their vastly scattered mountain groups are reduced to the state of submission that prevails in North Wales or Cumberland.

With so many attractions the question, “Where shall we go to climb in Scotland?” may seem difficult to answer. However, this is scarcely so, because, in the first place, three or four districts are paramount to all others, and the average climber, who is neither a Scot nor a rabid worshipper of “Caledonia wild and stern,” will soon realise that some of the outlying peaks are scarcely worth a visit, that is if he wishes to devote part of his life to seeing other mountain-lands.

Of course the Coolin of Skye are a region separate, but of the mountain groups on the mainland those porphyritic sentinels, which stand in solemn grandeur guarding the wild and rugged Pass of Glencoe from the inroad of civilisation, demand foremost attention. There is no centralised climbing elsewhere in Scotland of the same character and interest, as regards variety, quality, and quantity. At the present day good accommodation may be had at each end of the famous



Abraham

BUCHAILLE ETIVE, FROM NEAR THE HEAD OF GLENCOE

THE VERTICAL BUTTRESS OF THE CROWBERRY RIDGE IS SEEN RISING TO THE SMALL TOWER ON
THE LEFT OF THE HIGHEST POINT

Pass, and the climber would do well to make both places his centre for a few days. From Glasgow the West Highland Railway winds amongst the high moorlands with alluring peeps of mountain and loch on either hand, until it passes Fort-William beneath the shade of Ben Nevis, and ends at Mallaig, in view of the peaks of Skye.

Many popular climbing districts are passed *en route*, but shortly after skirting the shores of Ben Lomond the line passes through the lonely station of Bridge of Orchy. Climbers bound for Glencoe must alight here and mount their carriage for the 13 miles' drive to Kingshouse Inn, which is the centre for the eastern end of Glencoe. Of course, good walkers may prefer to "go under their own power," and this may be the enforced fate of those who order a carriage from Kingshouse to meet them at Bridge of Orchy. Later remarks will show that the postal delivery in these "wilds" is also erratic, and the only safe plan is to make the transport arrangements with the Inveroran Hotel, which is passed *en route*.

By the way, it may be mentioned that this comfortable hostelry is well placed for visiting the Blackmount group. The actual climbing hereabouts is somewhat vague and indefinite; the enthusiastic pedestrian will fare best, and the ramble over the three clachlets—Meall Bhiuridh, Mam Coire Easain, and Clach Leathaid—affords magnificent views of the rugged Glencoe group.

The sharp buttress-like spurs of Sron Creise and Stob Glas Choire, the couloir of Stob Ghabhar, and the pointed rocky front of the Stob Coire Dheig on Ben Starav will entertain the rock-climber for a while. But once the magnificent more westerly peaks on the other side of Glen Etive are fairly seen, the cragsman will soon desert the lesser game.

As our carriage bumps away down the rough road from the Pass of Blackmount to Kingshouse, the "Shepherd of Etive" thrusts his hoary head above the bleak moorland in splendid isolation, and recalls the well-known lines:

"Buchaille Etive's furrowed visage
To Schihallion looked sublime
O'er a wide and wasted desert,
Old and unreclaimed as time."

The primitive little inn of Kingshouse stands practically

at the foot of the heathery slopes which are crowned by the gigantic rocks of the Buchaille, and the peak from this side appears as one of the boldest and most symmetrical mountain cones in Britain.

An impetuous Scot once took it as the highest appreciation of this grand crag when a certain Cumbrian climber offered to "swop him with Great Gable." The bargain would certainly not be on the Sassenach's side, for there is more than twice as much climbing on Buchaille Etive as on the "glory of Wastdale."

The orographical name of the peak is Stob Dearg (Red Peak), and its highest point, 3,345 feet, lies in the apex of the angle formed by the two glens of Etive and Coe. Long ridges stretch from the summit along the sides of these respective valleys, but the north-eastern front of the central mass possesses practically all the real climbing. The limits of this cliff are sharply defined on the south-east by a deeply-cut ravine, called the Chasm, and on the north-east the Great Gully rises from near the water-shed of Glencoe to the top of the ridge. The Chasm as a rock-climb has not been fairly climbed throughout its entire length, but alteration in its somewhat friable internal structure may some day permit the great, upper pitch to be successfully attacked.

To the right of the Chasm there are numerous routes up the south-eastern face; the same remark applies to the north-easterly side of the mountain, and details of these are carefully entered in the Visitors' Book at Kingshouse.

The best known course on Buchaille Etive, or one might almost say on the mainland of Scotland, is the Crowberry Ridge, and few British climbs can compare with it in interest and difficulty. This must be my excuse for telling the story of the first direct ascent in the spring of 1900.

I well remember that afternoon in May when four cold and hungry climbers arrived at Kingshouse, much to the astonishment of mine host, who apparently knew nothing of our visit. The letter advising him of this came some days later in the course of the usual fortnightly or monthly delivery, as the case used to be in those days. What these hardy northerners live on puzzled us greatly, for we were curtly informed that there was "no food in the place but whisky," and the nearest place to obtain other supplies was many miles away.

Someone jocularly suggested that we should tie the rope tightly around our stomachic regions and sit down in a row until eatables could be secured; whilst a more practical comrade pointed to some starved-looking sheep, and suggested slaughter. Fortunately, we carried a small supply of chocolate, cakes, and other similar luxuries, and these were consumed whilst a weedily-built gillie went in chase of one of the sheep for the evening's repast. This was a dismal failure, but we fared better next day, after some eatables had been brought up from Clachaig, though I remember making a note that the carving of a Highland chicken was a more difficult problem than anything encountered during our first day's exploration of the north-east face of the Buchaille.

A few days later we decided to attack the Crowberry Ridge. The now well-known course proved rather puzzling to reconcile with the published descriptions we had read of it, but from the coach-road near the head of Glencoe it rises conspicuously to the sky-line just to the left of the top of Buchaille Etive, and two deeply cut gullies flank it on either side.

Until our visit the direct climb had been left severely alone, and a certain authority had declared it to be impossible without steeple-jack's apparatus. An expert, writing in the *Scottish Mountaineering Club Journal* (vol. iv. pp. 150, 151), says concerning it: "At its lower end also, the rocks which formed the crest of the ridge are hopelessly steep, and nearly unbroken for some 300 feet . . . I will not prophesy that that cliff will never be scaled in a direct line, but before then I think mountaineering science will have to advance to a higher stage of development. It is conceivable that a line might be chosen up those rocks any part of which could be climbed if it were, say, on a 'boulder,' or even if there were a reasonable number of platforms or anchorages. But, in the absence of these, a continuous steep climb of 300 feet is at present generally regarded as 'impossible,' because it would make too great demands on nerve and muscular endurance."

Nevertheless, a confidence begotten of many years' experience of such impossible places gave strength to our limbs. The auspicious morning was none too promising, and *en route* we sought refuge from a shower on the lee side of the ugly erection which has been placed for coaching purposes at the

junction of the Glen Etive and Glencoe roads. Here our typically disreputable climbing garb caused some "gentlemen of the road" to salute us in the most fraternal manner, and they became quite confidential with one of our party regarding the benefits of a suspicious-looking bottle which peeped from their leader's breast-pocket. Eventually the familiarity grew embarrassing, and we were glad to say farewell to them and breathe the purer air of the open moorland.

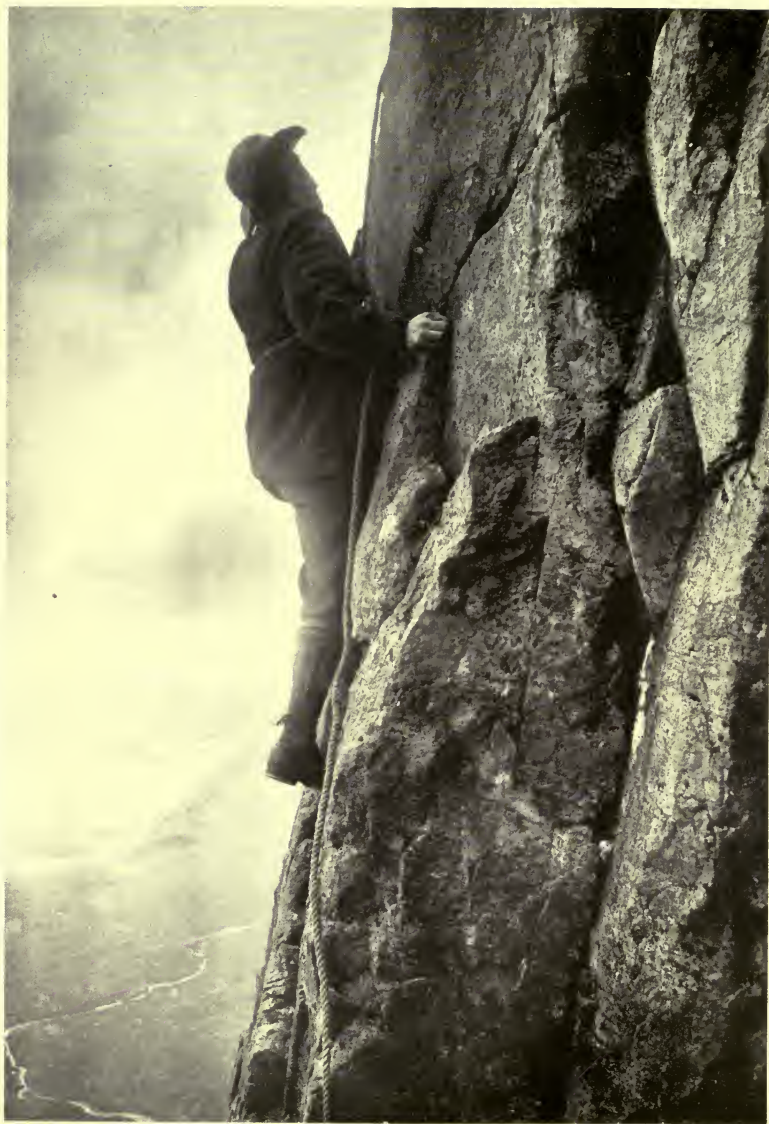
As we walked steadily up the steep, heathery slopes the shower ceased and the clouds, which had quite hidden the upper rocks, rolled upwards before a cool, dry breeze which blew down from the snowy regions farther north.

In two hours from leaving the inn we had climbed up to the grassy ledge below the nose of the ridge, and were busy readjusting our positions on the rope, allowing about 50 feet of its length between each member of the party.

The sweeping curve of the almost vertical rocks above us was beautiful to look upon, but its crest seemed smooth and holdless, so we first of all turned our attention to the only sizable crack that split the great slab at the bottom and slightly to the left of the true arête. This crack was really formed by a great rock obelisk, nearly as big as a small church spire, having partially split away from the face.

The route up the crack was quite feasible for over 20 feet, but, when wedged in the crack between the detached mass and the body rock, and struggling upwards, I imagined that the former moved slightly. My friends below, who were carefully paying out the rope, thought my imagination must be somewhat vivid, and treated the matter as a joke. Fortunately, as later events proved, I found the place impossible higher up; so, after descending to those below, we turned our attention to the forbidding-looking crest of the ridge a few yards to the right. This rather belied its appearance, and all went merrily and almost easily for quite 70 feet, when a slightly overhanging rock-face about 60 feet in height brought us to a complete standstill. After building a small cairn at the commencement, the last man came up to the *impasse*, and we all foregathered on a narrow ledge about 10 feet by 3 feet to discuss the situation.

The position was distinctly sensational. Right below us



Abraham

ON THE DIFFICULT FACE OF THE CROWBERRY RIDGE

the mountain sloped away in steep and almost perpendicular crags for fully 500 feet, and on each side of the ledge the rocks dipped sheer down to the snow-filled gullies which separated our ridge from its neighbouring buttresses. It was obviously a dangerous place, and we all felt that the next part was the *crux* of the climb. Progress straight ahead proved impossible, despite a prolonged inspection from my brother's shoulders.

To the extreme left of our resting-place there was a narrow ledge an inch or two wide, which led outwards on to the smooth nose of the ridge. The hand-holds were scanty for the traverse along this narrow way, and only just sufficient to make the balancing of the body possible (see illustration opposite). To add to the sensational uncertainty, the rocks were slightly moist at this point. After working carefully to the left for a few feet the foot-holds dwindled away to nothingness, and the only means of obviating defeat was to tackle the smooth bulge of rock that slanted upwards in an almost hopeless-looking manner. But the eye of faith descried sundry rugosities on the bulge, which eventually proved sufficient to help one defy the law of gravitation for a while. About 40 feet higher I was able to draw myself up into a tiny recess above the greatest difficulty. After the second man had unroped to allow more length I was able to move carefully upwards until a broad ledge afforded safe anchorage, and the rest of the party came up one by one.

We were now directly above the great detached mass of rock which had vibrated at my previous attempt from below, and a peep over the edge convinced us all that the way up the crack would never be climbed. However, future visitors will have no chance of proving the correctness of our judgment. A friend who has a weakness for such amusement dislodged a large flake of rock, and in its fall it just happened to hit the top of the loose obelisk which must have weighed some hundreds of tons. So delicately was the large mass balanced that it moved in its socket, lurched forward like a drunken man, and toppled over the precipice with a tremendous crash. The air below was filled with sulphurous dust and flying fragments as the great pyramid thundered down the broken crags. Almost instantly it became shattered into thousands

of fragments great and small, which crashed with mighty splashes into the depths of the snow-filled gully below. The whole ridge on which we stood vibrated as though with an earthquake, and we crouched nervously under a sheltering rock, fearing the shock might bring down some loose boulders about our ears. It is scarcely pleasant to think what might have happened had the previous route up the crack been persisted in.

We were now confronted with a steep, smooth corner about 30 feet high. However, some excellent hand-holds were available for the final pull, and the open slabs higher up provided a wonderful natural staircase, up which pleasant progress was possible for about 200 feet. Then the ridge broadened out, and hand over hand we rose rapidly towards the end of the climb. After passing the cairn left by a former party who had ascended the ridge to this point, by a flanking movement on its westerly side, we scrambled easily to the top of the Crowberry Tower.

Mention of our predecessors on this final stretch prompts the remarks that at one point in the lower part of their route a broad and obvious ledge leads out of their subsidiary gully on to the nose just above the most difficult section and below the 30-foot corner. This affords a comparatively easy, though somewhat dull, way up the ridge, but it avoids the loose rocks encountered by the early explorers in the upper part.

On the top of the Tower, which practically ends the climbing proper, we unroped, and had time to admire the prospect. A rainbow gleamed faintly across Glencoe's gloomy portal far below us, and through a break in the gathering clouds we had a last peep at Ben Nevis and "the lofty Lochaber."

Then a sudden change came over our mountain; the mists seethed and swirled beneath us and all around, heralding the raindrops which ere long made further halt uncomfortable. Soon we were scampering down loose scree, and zigzagging across gullies and buttresses to find the easiest way down to the heathery slopes. We gained these eventually by means of the snow-filled gully just east of the Crowberry Ridge, and after noting the havoc caused by our impromptu avalanche we strolled back to Kingshouse in the evening light.

It may be useful to future parties to briefly mention a few of the best courses on Buchaille Etive. The deep cleft which forms the western boundary of the Crowberry Ridge gives the best gully climb on the mountain. If the climbers keep directly to the left throughout, three interesting and difficult jammed-stone pitches will be encountered, and the final chimney, where the gully forks up to the left and finishes in the gap behind the Crowberry Tower, has not yet been conquered when free from snow. The square-shaped front of the Northern Buttress, which bounds this gully on the right, is worth ascending by means of a series of deep chimneys, which can be easily seen from the Glencoe Road.

Another excellent gully runs up near the centre of the Eastern Face, and its start is identified by its rising above some large and conspicuous boulders, which provide many entertaining problems. The gully has two difficult pitches in the lower section, and higher up it practically vanishes in a vast amphitheatre, out of which several sporting routes can be found to the summit. A series of cracks in the buttress straight ahead is probably the best of these.

The view from Buchaille Etive is not impressive; the desert-like Moor of Rannoch is too much in evidence, but the peaks massed round the western end of Glencoe help to relieve the monotony of the scene.

The rock-climber will soon recognise their attractions, and the presence of a delightful little inn at Clachaig, in close proximity to the finest climbs, adds in no small measure to their charms.

Kingshouse and Clachaig form extremes so far as situation is concerned. The former stands solitary and lonely on the open Moor of Rannoch, whilst the latter lies deeply secluded in the narrow defile of Glencoe with mountains slanting down on almost every side.

Scotland is often referred to as the "country of the bens, the straths, and the heroes," and, being familiar with some other distinctive national sayings, we christened Kingshouse the land of brown heath and scraggy sheep, and Clachaig the "land o' cakes," after our experiences of 1900. Authorities say that nowadays both places have been improved beyond recognition, which makes one sad as well as glad, for that first

visit to homely Clachaig, with its luxuries and comforts, will never be forgotten by any of our party. Still it is good news that Kingshouse has been brought up to that same standard of excellence, and a profitable holiday can now be spent there in comfort.

Of course the Pass of Glencoe, with its mountains and massacre, is one of the sights of Scotland, but early in the season the climber will see nothing of the holiday crowds. All visitors seem moved by the grandeur of the scenery. This is scarcely to be wondered at if the yarn spun by the cicerone of a certain personally conducted party is included in the usual programme. Pointing theatrically up at Ossian's Cave in the face of Aonach Dubh, he told his wondering flock "that the great cave running back deep into the nethermost bowels of the mountain, several thousands of feet high, was where the massacre of the innocents took place, and the victims were afterwards thrown down the terrible precipice into the peaceful lake of Triochatan." Small wonder it is called Glencoe, or the Valley of Tears, even in this present peaceful age.

It is unnecessary to enlarge further on this matter ; suffice it to say, that it is a fairly difficult climb up the last 100 feet or so into Ossian's Cave, and once there, it is surprising to find how small a floor space it possesses. In fact the place should scarcely be called a cave. It has been formed by a great columnar mass of rock falling out of the face of the mountain, and a party of three climbers will scarcely find comfortable sitting room on its sloping floor.

A tin box has been placed on a narrow ledge on the right-hand side of the recess for the enclosure of cards by those who visit it. When we left a wedding card there in the autumn of 1900 the box was surprisingly empty. There were only those of three or four parties who had preceded us, though the Visitors' Book at Clachaig contained the names of many who said they had "explored the cave and left their cards in the box."

On this occasion, after the descent to the valley, I remember sitting on some rocks by the shore of Loch Triochatan, when a fine specimen of a burly Highlander came along and accosted us. He was carrying a dead sheep over his shoulder, and his remarks about my companion's costume

and our rope led us to think we were not respectable enough to trespass on a deer forest.

When we said we had been up into Ossian's Cave, his astonishment was complete. He said, with a doubtful smile, pointing at my companion, "Na! na! not her!" and marched off muttering suspicious remarks anent Sassenach truthfulness. However, that same evening he appeared in the bar at Clachaig to tell about "twa lunatics" he had met by the Loch. The landlord, of genial memory, reassured him as to our sanity, and called me through to further his conversion by a judicious administration of the beverage indigenous to these parts.

However, as these hardy Northerners would say, I digress like a driven pig, and must back to my climbs. Intending explorers of Ossian's Cave should note that the best way to its entrance is up the left or eastern side of the obvious waterfall gully which cleaves the front of Aonach Dubh. Just below the cliff whereon the Cave stands, this deep water-course becomes shallower, and, turning sharply to the right, passes below the entrance to the Cave to continue sharply defined to the top of the crags. The climber is almost certain to follow up the easy upper bed of this gully in hopes of reaching the last 100-foot pitch that leads into the Cave. This course should be carefully avoided, because there is an almost impassable, slabby wall of the gully to climb before the real route into the cave can be joined. This starts from a curious grass ledge which runs continuously along the vertical wall of the gully and about 30 feet above its bed. This ledge must be gained where the gully turns sharply to the right; in fact, the actual water-course should not be entered at all, as the grassy traverse along the face of the cliff affords a simpler passage throughout when once its presence is realised.

Nearly two hundred yards along this ledge an opening in the crags discloses the steep, vegetation-covered rocks which offer the only way up into the Cave. The somewhat loose turfy holds accentuate the difficulty of the final stretch, and caution is necessary, specially during the descent. Despite the wonderful scenery the rock-climber will not usually think a second visit advisable.

After descending from the Cave the best way to the top

of Aonach Dubh continues along the afore-mentioned ledge which slopes upwards, and, after crossing the bed of the gully, there is an easy scramble up the broken, rocky ridge on its right. It may be noted that the gully finishes near the top of the mountain with some impressive-looking pitches, the ascent of which would provide experts with amusement for the rest of the day after a visit to Ossian's Cave. This gully lies west of the entrance to the Cave, and to the east of this place another fine route up the crags starts from the grassy ledge previously referred to.

The westerly face of Aonach Dubh as seen from Clachaig presents a fine appearance, with its ladder-like buttresses and deep gullies. Up to the present time it has not been much visited by climbers, and there are several new and interesting routes yet to be made. The two big gullies in the centre of the face have been partially ascended, but at the difficult sections advantage was taken of the tier-like structure of the crags to traverse out to one side or the other, and so gain easier ground either on the buttresses or in neighbouring gullies. In a large rocky hollow near the top of the second main gully, reckoning from the northerly end of the face, there stands a very fine pillar which is most easily located from above. It has been christened Winifred's Pinnacle, and there are two ways to the summit; one from the narrow neck connecting the rock with the main cliff, and the other, and more difficult way, starts nearly 50 feet lower down the gully on the left as the climber stands in the narrow neck formerly mentioned. It is worth pointing out that the base of the pinnacle, which by the way resembles in appearance the famous one on Scawfell, can be easily reached from the top of the crags by descending a loose gully to the left (looking downwards). The ascent of Winifred's Pinnacle straight up the ridge facing Clachaig would prove a magnificent course, but one section, about 250 feet below the top, still remains unconquered.

The climbs on Aonach Dubh usually turn out to be longer than expected, and those who are threatened with missing dinner at Clachaig or, what is worse, spending the night out on the rocks, will be glad to know of a quick and

easy way down to the valley. This is by means of a grassy buttress which runs almost continuously down the northern end of the western cliff facing Clachaig. By avoiding, on one side or the other, the rocky outcrops which occur at places, it is quite possible to descend without using the hands at all.

It should be understood that Aonach Dubh is really only a spur of Bidean nam Bian; the same may be said of Ben Fhada and Gear Aonach, which are popularly known as the Sisters of Glencoe. All these peaks, with An t'Sron and Stob Coire nam Beith, form the southern boundary of the famous Pass, whilst its northern side is shut in by the Aonach Eagach group with Sgor nam Fiannaidh (3,168 feet) at its west end. Meall Garbh rises in the centre, and Meall Dearg forms the outlying point on the east.

The most fascinating of the more popular Glencoe climbs is the Church Door Buttress on Bidean nam Bian (the pinnacle of the skins). Why it is so called no one seems able to say. It has been humorously suggested that it is on account of the quantity of epidermis lost on the rocks by previous generations of mountaineers; an equally reasonable solution would be that those who survived the historical massacre saved their "skins" by fleeing over Bidean.

In any case we may assume that they did not climb the Church Door Buttress *en route*. Indeed, until July 1898 it defied the best efforts of several parties of famous experts, whose names need not be mentioned.

The upper part of Bidean, as seen from Corrie nam Beith, appears as two bulky rock buttresses with a deep-set gully dividing them, and a prominent pinnacle more or less blocking up the lower end of this gully.

The buttress on the right provides the climb previously referred to, that on the left is the eastern buttress of less fearsome form, whilst the rock at the foot of the Central Gully is known as Collie's Pinnacle.

The way to "unlock the Church Door" is to start up the crack in the right wall of the Central Gully. The actual "take-off" is about at the level of the top of Collie's Pinnacle. There is no serious difficulty in this lower section if the correct "keyhole" is found through which it is possible

to squeeze, and, after rounding a steep corner, the open buttress provides simple progress for some distance. The climber is then gradually forced off on to the left wall by the perpendicular upper rocks until he finds himself crossing a curious, natural bridge of rock. This is several yards long and two or three feet wide. It has been formed in some unaccountable manner by a mass of wedged boulders left insecurely supported against the face of the cliff. It is an eerie experience to feel them vibrate at places, whilst sundry peeps down, through the holes in the improvised pathway, to the bed of the Central Gully a few hundred feet below render the crossing sensational. It is scarcely advisable for more than one climber to be on the place at a time.

This must have been a veritable "bridge of sighs" to the early explorers, for the chimney that rises from its farther or eastern end was their *bête noire* and caused many unwilling retreats. This is not technically difficult if the conditions are fairly good, and, after all, the *mauvais pas* is scarcely more than fifteen feet in height. However, collapse on the leader's part would probably prove fatal, as he would fall out of the foot of the chimney and disappear over the edge of the bridge into the abyss of the Central Gully. There is good anchorage, but the rope would scarcely stand the strain. Thus, though the upper part to the top of Bidean is comparatively easy, no novice should attempt the Church Door Buttress.

The Eastern Buttress is said to provide two moderately easy routes to the summit after the lower fifty feet have been negotiated.

The Central Gully possesses no pitches excepting a simple one in the right fork below Collie's Pinnacle, which picturesque rock may also be included in the easy courses, if tackled from its shorter side some distance up the gully.

Bidean nam Bian (3,766 feet) is the highest mountain in Argyllshire, and, unlike most of the higher Scottish mountains, the view from its summit is magnificent. A billowy sea of mountain ridges encircles this central peak, and on the west the "fiord-riven" coast line, with distant ranges rising from sea-girt shores, renders the scene, specially at sunset, ravishingly beautiful.

The shapely peak of Stob coire nam Beith lends more practical interest to the nearer distance, for the grand bastions of porphyry which rise from the coire will provide much enjoyment for the energetic climber who loves to investigate places untrodden by human foot.

The Stob looks its best from Glencoe; near the foot of Loch Triochatan it is most conspicuous, and is usually mistaken for the Bidean which lies rather farther back. There is any amount of good climbing on this side, notably in one engrossing gully which begins, roughly speaking, about five hundred yards to the east above the place where the familiar wire fence abuts against the cliff. The lower pitches can be climbed direct, and a curious rock bridge a short distance above the commencement will help future visitors to identify the course. At a point where the gully opens out, not far from the summit, a wet and difficult pitch quite a hundred feet high is encountered. The direct ascent can be obviated by making a way up the left wall for about forty feet, and then a sensational traverse leads back again into the gully above the most formidable section. Higher up, the course becomes rather indefinite, though a series of chimneys can be followed to the actual summit of the Stob.

On the other side of Glencoe the passage along the crest of Aonach Eagach from Sgurr nam Fiannaidh to Meall Dearg is one of the finest expeditions in the district. The ridge is narrow enough in places to compare most favourably with parts of the Coolin Ridge in Skye or the best section of Crib Goch on Snowdon. The north side of Aonach Eagach is impressively steep, but it is practically unvisited by rock-climbers.

On the side facing Glencoe the slope is less severe and there are at least half a dozen gullies, and some buttresses that would yield interesting sport. The obvious gully in Sgurr nam Fiannaidh, just opposite the hotel at Clachaig, has not yet been ascended throughout; there is a repulsive, vegetable pitch, two-thirds of the way up, which has defied the efforts of experts repeatedly.

The enthusiast who visits Glencoe cannot fail to be impressed by the number of new climbs awaiting exploration; a month at least could be spent in the district, and a new climb recorded each day.

The next Scottish mountain group in order of interest to the rock-climber is Ben Nevis (4,406 feet), and its north-western spur called Carn Dearg. First impressions of the monarch of British mountains are usually disappointing, for it is so buttressed up by its own off-shoots that the popular opinion of it as a "shapeless, uninteresting mound" appears fully justified. As a matter of fact it is scarcely possible to find a view-point that does justice to the true grandeur or height of the mountain. Even in the distant view from Banavie the peak has a poor form; there is some reason in the answer of a Yankee lady to a soi-disant geologist who was making inquiries regarding its structure, "that she guessed it a 'longed to the plum-pudding order.'"

Until as recently as 1847 Ben Muich Dhui in the Cairngorms was considered to be the highest British ground, but in that year the Ordnance Survey finally deposed the northern usurper, and Byron's lines from "Manfred" may be modernised to

" Ben Nevis is Monarch of mountains,
They crowned him long ago
On a throne of rocks, in a robe of clouds,
With a diadem of snow."

The line of perpetual snow in these higher latitudes approaches very near the level of the top of Ben Nevis, so "the diadem of snow" is generally in evidence on the upper reaches to salute those who scramble up the magnificent "throne of rocks" which adorn the northerly front of the Ben. On practically all other sides, if a few rocks on the Glen Nevis side are excepted, the Ben possesses no serious opportunities for the rock-climber.

Fort-William, with its somewhat palatial hotels, is the best centre; and those who travel from Glencoe will go by steamer from Ballachulish, whilst the West Highland Railway, running from Glasgow to Mallaig, gives access from other directions.

There is nowadays a splendid path—it might almost be called a road—up the mountain, which was constructed to give access to the observatory, where until quite recently valuable meteorological records have been kept in conjunction with the sea-level station at Fort-William. Sad to tell, lack of funds has

caused the suspension of the good work. No longer will climbers, who battle with icy rocks and howling blizzards on the great northern precipice, be cheered on to final conquest by thoughts of the genial hospitality and hearty welcome always awaiting them where the kind-hearted observers spent their lonesome days.

The ordinary pedestrian who visits the Ben gets no idea of the grandeur of the side favoured by the rock-climber. Only those who penetrate into the long valley of Glen Mhuilinn on the northern slope of the mountain realise its true glories. This glen may be reached from Banavie and Lochy Bridge, but the best way lies up the observatory track, about as far as the lake above Meall an 't Suidhe, and at the last bend before reaching the half-way hut it is usual to strike across the boggy ground to the left. Skirting round the rough slopes of Carn Dearg a short descent leads into the glen, and then the towering crags of the Carn on the right are the centre of attraction.

Before entering into details of the climbs it is advisable to continue our journey some distance up the valley, until the cliffs of the Ben itself are well in front, and then a scramble up the scree slope of Carn Mòr Dearg on the left, not to be confounded with the more imposing Carn Dearg on the opposite side of the Mhuilinn, will provide a glorious view of one of the most stupendous range of precipices in Britain. The frontage extends for nearly two miles, and at the highest part it must rise in fully 1,500 feet of solid rock. From our present standpoint "the dark wall of porphyry can now be seen with its huge masses of rifted rock standing up like ample buttresses into the light, and its deep recesses and clefts, into which the summer sun never reaches and where the winter snow never melts. The eye travelling over cliff and crag can mark everywhere the seams and scars dealt out in that long warfare with the elements, of which the mountain is so noble a memorial."

Thus Nature has prepared for the coming of the climber, and to show, in some way, where amongst these vast crags he may best enjoy his sport, a general detailed survey of the various routes may be made, starting from the left or north-eastern end of the amphitheatre.

The imposing cliff of the North-Eastern Buttress on the

extreme left provides one of the best easy routes on the mountain, and though it looks difficult, the description of it as a "huge impostor," is a fitting one. A wide ledge, usually known as the first platform, runs across at about one-third of its height, and this is the key to the easier ascents. It is possible to walk on to this platform from the east, and from the west the rocks slope for the most part at an easy angle, and several routes are available to gain the same ledge whence the narrow part of the ridge begins. The first platform can also be attained almost directly up the face of the buttress, but this is a more difficult matter and only suitable for experts.

On the narrow upper ridge the route is obvious; short slabs, cracks, and chimneys alternate as the climber scrambles upwards over a tower-shaped formation. The only section in the upper part worth noting is where a narrow ridge abuts against a steep rock wall which has for some reason or other been called the "man-trap." It is scarcely ten feet high, and if the rocks are dry it possesses no serious difficulty; even if iced the leader could be "shouldered" up it with ease. There are alternative ways of passing this, either to right or left, as is, in fact, the case with any of the best parts of the buttress, and in the upper part, unless ice is present, the climb is inclined to grow monotonous.

The next course on the right is the Observatory Ridge, and on each side of it steep chimneys are prominently seen, but neither of these has yet been conquered. The Ridge is one of the most difficult climbs in the district if taken direct, and its companion to the west, the Observatory Buttress, is scarcely less formidable.

The long Observatory Gully, under suitable conditions, is usually just a snow walk until the upper part is reached. Cornices are frequently in evidence, and they sometimes overhang to such an extent that tunnelling is necessary. To avoid this, it is as a rule a comparatively easy matter, when lower down the gully, to traverse across to the Tower Ridge on the right. I remember one of the observers saying that the biggest fright he ever had was on one winter evening when he saw a human head suddenly appear out of the apparently solid snow over which he was taking a twilight walk. A reassuring "Halloa!"



THE NORTHERLY FACE OF BEN NEVIS FROM CARN DEARG

dispelled his fears; the head belonged to the leader of a party of Englishmen who had by tunnelling thus effected an escape from one of the branches of the Observatory Gully.

The Tower Ridge, if climbed throughout, is the best course on the mountain, and is probably more visited than all the rest of the neighbouring climbs combined. At the beginning there is a curious tower-shaped rock which bears a remarkable resemblance in many ways to the Parson's Nose in North Wales, though it is on a larger scale; the climbing is very similar in the two cases; there is a difficult direct route up the front, and easy gullies, east and west, lead up to the "Gap" where the lower rock is separated from the main ridge.

It should be recorded that this Scotch "Nose" is known as Douglas's Boulder, probably on account of the genial editor of the *Scottish Mountaineering Club Journal* being concerned in its first difficult ascent from the front.

It is a stiff little pull from the "Gap" on to the top of the "Boulder," but this same point can be easily reached by making a *détour* on the west side.

The ascent of the Tower Ridge from the Gap provides a long but interesting scramble. The only part that would be called difficult is the ascent of the prominent Tower which looms ahead all the way up, and gives the name to the ridge. This has scarcely been climbed directly *en face*, but there is an easy way of passing it on the east side where a traverse is made to the left, and after creeping through a curious rock doorway, an easy scramble leads to the top of the Tower. There are at least three ways of attaining this point from the west, none of them of very great severity.

The final part of the ridge is quite simple, though the cleft where the Tower is detached from the main mountain mass may cause trouble in bad weather. The next course of interest to the west leads up to this side of the Tower by the Tower Gap Chimney, which resembles in some ways Steep Ghyll on Scawfell.

Farther to the right there is the somewhat difficult No. 2 Gully, and several splendid buttress climbs, notably The Comb, before the rocks begin to slope away to the Coire na Ciste, wherein reposes the tiny Lochan with its delicately tinted water, reminding Alpinists of the beauties of the Lac Bleu near Arolla. Then a wide couloir, with a fine pitch in it, like the

first pitch in Deep Ghyll, continues up to the *col* between Ben Nevis and Carn Dearg.

The latter mountain faces in a more easterly direction and provides several splendid expeditions. Quite close to the *col* just mentioned, the Trident Buttresses look interesting; one of them is still a virgin climb, and the others are said to be difficult. The Great Central Buttress of the Carn is its most conspicuous asset; there are several routes up it, some more or less direct, but it is most amenable to attack from either side, preferably on the south. The "staircase" is the best-known means of ascent; it is a difficult course, and runs for the most part up the steep, slabby front of the buttress after starting somewhat on the north side. Farther to the right there is a fine hollow in the cliff, easily gained from below, and called the Castle Corrie. Several gullies lead hence to the top of the peak, and the fine-looking buttress on the extreme right is the popular Castle Ridge. Its climbing details resemble in many ways the North-East Buttress on the other extremity of the amphitheatre, though this Carn Dearg Ridge has not yet been climbed directly from the foot, and the usual course begins on its southern side.

In concluding this short review of the Ben Nevis climbs it should be noted that, as rock-climbs pure and simple, they are not as a rule of the same standard of difficulty as the usual Cumbrian and Welsh courses. The greater mass of the precipice is not inclined at a very steep angle, but none of the more southerly mountains possess the peculiar snow and weather conditions of Ben Nevis, nor are the climbs as a rule comparable in length. The upper crags are often masked in ice and snow until the middle of June, and miniature though formidable berg-schrunds may make the approach to the rocks somewhat dangerous. These varying conditions make comparative classification somewhat unreliable.

On the whole, the man who can enjoy Ben Nevis thoroughly must be a mountaineer as well as a rock-climber; but he should first of all be a patient and long-winded walker, for it is a long, dull grind from Fort-William to the foot of the crags. Even enthusiasts soon tire of this daily prelude, which is apt to grow monotonous, and they wander off in search of "fresh woods and pastures new."

Lack of space, and in some cases lack of actual experience of the climbs, necessitates but a short survey of other Scottish mountaineering districts. The vast range of the Cairngorms farther north is composed for the most part of a peculiar red granite which gives a strange effect to the rocks when bathed in sunlight. The whole mountain massif is, so to speak, an elevated tableland split into sections by deep valleys. The summits rise but slightly in comparison with their surroundings, and lack the wild character and fantastic outlines of other British peaks. Considering their opportunities, very little climbing has been done in these districts.

Aviemore is the best and most popular centre, and the long trudes, which are the greatest drawback to rock-climbing in the Cairngorms, can be obviated considerably by driving as far as the mountain roads permit.

Sgoran Dubh, with its five "sporting" buttresses, is the most popular resort hereabouts, but Braeriach, Cairntoul, and Ben Muich Dhui all afford varied scrambling. Taking all details into consideration the usual impression is that the Cairngorms are more favourable for the operations of the "peak-bagger" than of the rock-climber.

From Aviemore it is possible to return to civilisation by way of Loch Laggan and rejoin the Highland Railway at Tulloch. The hotel at Loch Laggan is a capital centre for Creag Meaghaidh, of which Coire 'Ard Dhoire (or Corrie Arder) on its north-east side is the "tit-bit." This affords splendid climbing on The Posts and in their adjacent gullies, whilst the tiny Lochan reposing in the lap of the wildest of corries is one of the finest sights of the country.

The peculiarities of the Gaelic orthography cannot fail, at least during the first visit, to impress and puzzle those climbers who come from across the Border, and Creag Meaghaidh (pronounced Meggie) is an example of their lavishness in the use of ornamental letters. The following amusing couplet by a member of the S. M. C. is ingenious and educative :

" He who's long in the leaghaidh
May tackle Creag Meaghaidh ;
Or a task that is hardhoire,
The ' posts ' of Coire 'Ard Dhoire."

The "steep, frowning glories of Lochnagar" have always a strange fascination for the climber, and he who goes to inspect them will not be disappointed. The peak is celebrated as being "the highest Scotch mountain ascended by Royalty," and Byron's famous poetry and prose, where he describes it as "one of the most sublime and picturesque among the Caledonian Alps," are known to all lovers of the far "North Countree."

Ballater is the best centre, though some distance from the climbing, which is situated principally in the great north-east corrie of the mountain. The quickest route follows the main road some miles up the Valley of the Muich to Inchnabobbart, where, by the way, accommodation may sometimes be found for two or three climbers. Thence the track goes over the *col* between Meikle Pap and Cuidhe Crom, and farther on it is possible to descend into the corrie to the base of the cliffs above the lonely loch. Steep granitic buttresses rise for about six hundred feet to the summit, and there are at least four gullies and several buttresses worth attention. The Black Spout is the most conspicuous cleft in the face, but it is simply an exasperating scree walk in summer-time, and in winter scarcely possesses very large cornices.

The finest course on Lochnagar is the first gully to the left of the foot of the Black Spout; its main feature is a great pitch, which, about half-way up, chokes it completely from side to side.

There is a remarkable unclimbed gully still farther to the left of this, which is crossed nearly half-way up by one of the earliest routes discovered up the face. This latter is the historic Tough-Brown Ridge climb, and starting still farther to the left of the unclimbed gully it works transversely up the buttresses to finish on the top of the course previously mentioned, but altogether misses the difficult central pitch.

It should be noted that Lochnagar is wholly situated on the royal deer-forest of Balmoral, but climbers or tourists are not usually denied access to the mountain.

The beauties of Loch Awe, with its comfortable hotel, attract many climbers from Edinburgh and Glasgow, who wish for a few days outing in the clear mountain air. Ben Eunaich, with its formidable "Black Shoot," is the favourite

mountain in that neighbourhood, though plenty of short scrambles can be found on Beinn a Chochuill, Stob Garbh, and on parts of Ben Cruachan.

Those with a restricted holiday will also find "The Cobbler" (Ben Arthur) worth a visit, and Arrochar is the most convenient centre, though many prefer the luxurious hotels at Tarbert.

From the former place a boat can be hired across Loch Long, and thus a long walk around the end of the loch is averted, and time saved accordingly. The Cobbler is one of the most disappointing of mountains; it looks magnificent from the West Highland Railway, but what appears to be a sharp, serrated ridge proves to be a comparatively flat-topped mountain with vegetation-covered cliffs on the side exposed to view from Arrochar. Probably the contrast with the surrounding round-topped eminences conduces to this deceptive impression.

The rocks consist of a smooth kind of micaceous schist, the like of which is scarcely ever encountered on any other genuine mountain at home or abroad. The climber who is accustomed to the rougher volcanic rocks will find the easily inclined slabs of the Cobbler disappointing, for the peculiar geological structure usually makes vertical stretches impossible, and easy-looking places prove deceptively difficult as well as risky on account of the friable holds. The actual summit rock provides the most amusement, and short, boulder-like problems can be unearthed, literally, on the prominent eminences known as the North and South Peaks.

As a view point the central peak is unique; foreground, mid-distance, and background are beautifully blended, and the mountain photographer will find subjects galore as a consolation for the lack of satisfactory climbing.

CHAPTER XVI

CLIMBING IN SCOTLAND—THE COOLIN, SKYE

“ Lovest thou mountains great,
Peaks to the clouds that soar,
Corrie and fell where eagles dwell,
And cataracts dash evermore?
Lovest thou green grassy glades,
By the sunshine sweetly kist,
Murmuring waves and echoing caves?
Then go to the Isle of Mist.”

THUS sang that earliest of “ridge-wanderers,” Sheriff Nicolson; and those who have followed in his footsteps owe a debt of gratitude to his memory. From a climber’s point of view, Nicolson discovered “The Coolin” just as much as Columbus did America. Dr. Johnson and many others, who in earlier times visited the island, only appeared to be impressed with the “horrors of the mountains”; their greatest happiness seemed to be to get away from them.

Remembering the dictum of the famous Sheriff, it may seem arrant presumption to say that the “prime of the summer-time” is not the best season to visit the Coolin; but perhaps conditions have changed since his days, and one feels in duty bound to say that the Isle of Mist almost invariably justifies its name at that time of year. Skye is the wettest place in Scotland; but just as August, July, and the latter half of June are usually damp and cloudy, so the early days of June, as well as the whole of May and the end of April, are usually dry and clear.

Not many years ago the journey to Skye was somewhat of an undertaking. Even nowadays from London it takes almost as long to reach Sligachan Hotel, which is practically the only centre, as it does to travel to Grindelwald. The

most picturesque means of approach is by utilising the ordinary tourist steamers, which, starting from Glasgow, sail up the western coast by Oban and around Ardnamurchan Point, where the Atlantic swell may necessitate a short retirement from the enjoyment of the peaceful beauties of Nature.

The quickest journey can be made almost wholly by railway, *viâ* Glasgow, Fort-William, and Mallaig, whence a short sea-trip of about five hours will land the traveller at Portree. Then follows the somewhat uninteresting nine miles' drive to Sligachan, but the last stage of the journey may prove more cheery if the weather is clear.

The first actual sight of the Black Coolin at close quarters comes suddenly. A sudden rise in the road discloses the be-pinnacled and jagged crest of Sgurr nan Gillean, and the sudden contrast after the dulness of the flat moorland renders the scene most striking. The straight-ribbed, vertical-looking cliffs are partially cut off by one of the nearer ridges, but this all serves to accentuate their height and convey the idea that they slant down some thousands of feet farther into an invisible valley. Sgurr nan Gillean is only about 3,167 feet high, but at the first impression this seems difficult to believe, for in appearance it rivals many of the towering aiguilles of Chamonix.

As the carriage rattles down the slope to Sligachan, the scene broadens out; the round-topped hills of the Red Coolin almost dominate the view, but a peep at the sharp tip of Clach Glas beyond the side of Garbh Bheinn gives an air of respectability even to these otherwise dumpy-looking mounds.

Farther along, at Sligachan Hotel, Sgurr nan Gillean is seen in full array, but one cannot say that distance lends enchantment to the view. Much of its imposing aspect has disappeared, but, from across the tiresome moors that separate us from the peak, it seems as though an easy scramble would lead straight to the top. However, one accustomed to the study of mountain form will not be misled. The view on the way from Portree will have disclosed the fact that the harmless-looking slope of the peak that faces Sligachan is seen foreshortened from the hotel, and is really composed of five shapely pinnacles divided by steep clefts. The ascent of Sgurr nan Gillean over all these provides the well-known Pinnacle Route, the most frequented of all the Coolin climbs.

The long ridge on the left or eastern side of the summit provides the only easy or tourist way to the summit after a long *détour* to reach its foot has been made. Even this course requires a certain amount of nerve on the part of its usual frequenters, but when the mountain is under snow and ice it will most likely prove the only means of approach even for a party of expert mountaineers.

On the other side of the Sgurr the western ridge, with its lonely gendarme and almost impossible lower step, slopes more steeply down to the *col* below Bhasteir (The Executioner), which cuts boldly into the skyline with its aggressive-looking Tooth guarding it on the west.

To ascend Sgurr nan Gillean by the Pinnacle Route, and, after descending the West Ridge, to make the complete traverse of the Bhasteir and his Tooth would be a typical Coolin course for a strong party. However, before going into minuter details of the climbing, it is preferable to offer some general remarks on the mountains and other topographical matters.

Travellers in Montenegro are probably familiar with the native idea that "when God made the world He held in His hand a sackful of mountains, and when above Montenegro the sack burst, hence the fearful chaos." Applying the same superstition to the Coolin, we may say that the sack burst over the south-western extremity of the Isle of Skye, hence the most fantastic and grandest mountains in Britain. But climbers, as a rule, are of a more prosaic tendency, and will prefer to think of the Black Coolin as the result of a terrific volcanic cataclysm, when in prehistoric times a vast bed of lavas welled up over parts of those northern latitudes. Following the fire-age came the ice-age to mould the main features of the range, and then thousands of years of natural weathering have tended to the gradual disappearance of the softer rocks, leaving the harder substance standing bold but shattered by the conflict of ages with stress of storm and wind.

Of recent times man has actively assisted these natural developments as some of those pioneers could prove, specially those whose heads bear the marks of those loose stones which in the early climbing days seemed to be dangerously perched everywhere. These latter features have almost disappeared on the popular routes, but evidences of the volcanic formation and

still more remarkable traces of the ice-age are obvious to the most hopeless victim of climbing-fever. Alpinists must specially be struck by the signs of comparatively recent glacier action, and in some of the great hollows, such as Corrie Labain, after one has scrambled up tremendous, striated slabs it is almost surprising to find no glacier filling the great, rock-encircled cavity.

The range is conveniently divided into two groups—the Red and the Black Coolin. The former are largely composed of soft granite with a smooth vegetation-covered formation, which possesses no interest for the rock-climber. The latter are of gabbro—sharp, rough, firm, and hard for the most part, of which facts all explorers' clothes, hands, and other bodily members soon provide striking evidence by their torn appearance. Satisfactory hand- and foot-holds are almost always plentiful on the ordinary routes, and, whilst on other British climbs the trouble is often to find any support at all, the difficulty in Skye is usually that of selecting the best. Thus appallingly steep places can be scaled in comparative safety, and, as a general rule, the courses in Skye look far more difficult than they are in actual practice.

Glen Sligachan divides the two groups of the Black and Red Coolin from each other, though it should be remembered that by some geological errors some "wingers" of the "All Blacks" appear to have become separated from their companions and collared by the Reds. However, these detached portions, Blaven and Clach Glas, worthily uphold their reputation, though they are in bad company; thus the scrambler who visits them will receive a firm and solid welcome from their rough-gripping bastions, and he can enjoy splendid exercise struggling to get out of the clutches of some of their narrow chimneys.

The main mass of the Black Coolin on the other side of Glen Sligachan form one long continuous mountain chain of a crescent or horse-shoe shape. The highest summits are placed with curious regularity along the main ridge, which throughout its whole length rarely drops below a height of 2,500 feet.

Obvious *cols* or rather *bealachs* separate the peaks. These depressions are a real blessing to mist "be-fogged"

parties, and it is useful to know at such times that an easy as well as safe way valleywards can almost invariably be made from any of the principal bealachs. This knowledge would have saved many sad adventures, and also the less serious discomforts of "nights out" on the rocks, if its reality had been generally recognised.

Few mountains anywhere can equal the Coolin in bad weather. There are numerous branch ridges diverging in almost every direction from the central one, and though in a thick mist in other districts a compass would generally simplify matters, unfortunately the rocks here are highly magnetic, and this guide becomes useless. Until recently the painfully erroneous Ordnance sheets had perforce to be used, but nowadays the splendid new map issued by the Scottish Mountaineering Club is available, and a previous study of it will repay all mountaineers.

On account of the chain-like arrangement of the group, ridge-wandering is one of the principal amusements in the Coolin. It has been mooted whether the main ridge could be traversed in twenty-four hours from Sgurr na N'Uamha on the north to Gars-bheinn on the south. Despite the remarkable high-level walks in the English Lake District, it will be generally agreed that this, though at first sight a less stupendous-looking performance, is impossible.

Standing on Drumhain by the path over to Coruisk, and casting the eye casually round the circle of rough-topped mountains, the task seems almost feasible. But seen at close quarters, these pinnacled summits, with their sharp crests, deep rifts, and almost impossible gaps, will quickly incline the mountaineer to recognise the obstacles in his path, and make him agree that the feat is only for the gods, "who step from mountain-top to mountain-top." Authorities are inclined to think that two long summer days would be required for a man, who must be both an expert rock-climber and pedestrian,—a somewhat unusual combination,—to complete the entire circuit.

Even to undertake many of the usual Skye climbs requires considerable walking powers. It is a long morning's walk from Sligachan to some of the more southerly mountains, and apparently still further back in the evening. Sligachan is a

comfortable and altogether convenient centre for the northerly peaks, and those who wish thoroughly to explore the other end of the range must either camp near Coruisk or endeavour to get accommodation at Glen Brittle. There is a private residence at this latter place, and the owner is now and again kind enough to place part of his property at the service of climbers who have special influence or recommendation; but it might also be mentioned that the shepherd, who lives close by, will sometimes allow paying guests to share his frugal board. Besides these, there are a few crofters' cottages on the shores of Loch Brittle, where advocates of the "simple life" may test their theories. Others may prefer to find a *gîte* somewhere in one of the corries, and in settled weather a night spent thus is altogether delightful. For instance, a native could be hired from Sligachan to carry blankets and food supplies, etc., to the head of Corrie Labain, below Sgurr Alaisdair, to meet a party of climbers who had traversed the southerly peaks from Sgurr Dubh, or made other routes in that vicinity. The next day's climb could be so arranged that the party would be able to reach Sligachan that evening.

The noted Mackenzie family, who form the "corporation of guides" for the Coolin, with John of that ilk as *guide chef*, can give valuable assistance in such matters, as well as in the actual rock-climbing. The *bureau des guides* is the Sligachan Hotel.

Other means are available for reaching the distant peaks, such as driving to Glen Brittle, after a very early breakfast. Some climbers prefer to traverse over the range from Coruisk and order the carriage from Sligachan to meet them at Glen Brittle in the evening. The drive in either direction between these places is extremely tedious; it is also painful and constricting after a day's rock-climbing, and most experimenters, like a certain raven, are apt to say, "Nevermore."

A short description of some experiences during our first visit to Skye in 1896 will give an idea of the best known courses and also help to elucidate the topography and possibilities of the Coolin.

It was the last day of April when we travelled by sea from Oban to Portree. The views of rock-bound coast with snow-tipped mountains beyond were glorious at the outset; but

I must confess that we wearied even of these as the long day wore on and Skye seemed as far off as ever.

Almost every tiny fishing village was a place of call, where quaint Highland characters came aboard or rowed out in prehistoric-looking craft to exchange gossip, and little else, with our crew. This went on from about 7 a.m. on the first day until the early morning hours of the next day. The only break in the slow and monotonous routine was when cattle and other animals had to be landed; in many cases they were simply pushed or dropped overboard and allowed to swim ashore. However, more asleep than otherwise, we arrived at Sligachan after a long, cold drive, just as dawn began to illumine the thick, white mist that, to the best of my recollection, hid everything except some welcome coffee and eatables; whether this was supper or breakfast no one knew or cared. After what scarcely seemed half-an-hour's repose, the enthusiast of the party crashed into the bedroom, and his exclamations of delight and descriptions of the surroundings banished all sleep from our eyes. In due course we were able to survey the objects of his eloquence, and the sight was enough to make us suggest a start without the very necessary refreshment for the inner man.

The whole lower and immediate landscape was hidden in a thick mantle of white mist. But this ended suddenly with a soft fleecy line in the higher regions, and above this peeped at last the long-sought-for objects of our travel, the Coolin in all their splendour of black crag and glittering snow-filled gully. Their summits truly seemed to "jag the sky with grizzly splinter and peak" in that peculiar manner which draws all climbers unto them. The gently-moving mist below, with the deep, blue, cloudless sky up above, and the sun's slanting rays picking out every rock on the peak with translucent clearness, added vastly to the glory and grandeur of our first impression of the mountains, an impression which has only become heightened on closer acquaintance.

Inquiries as to the names of the peaks from one of the hotel attendants was not very educative, for "he had no English," or at least he said so; but we gathered which was Sgurr nan Gilleann, and after that, the others were comparatively easy to locate from maps and literature.

Ere long we were off over the scraggy heath, moorland, and bog, attempting to make a bee-line for the nearest end of Sgurr nan Gilleann in order to make its ascent by the Pinnacle Route; that is, over the four pinnacles to the summit, which may conveniently be called the fifth pinnacle.

Our bee-line was an erratic one, for tiny lakes and treacherous morasses necessitated *détours* and careful negotiation if we were to arrive dry-shod at the foot of the rocks. This somewhat wearisome trudge, the word "splodge" conveys a better idea of it, which is a typical prelude to most of the Skye climbs, lasted almost an hour. During that time the mist had gradually disappeared, and only a few stray wisps circled lazily amongst the crags. The hot sun played havoc with our complexions and peace of mind, and some tiny flying insects, which we christened the "Skye terrors," (we never saw any of the famous terriers during the visit,) took advantage of our tender skins to bite us unmercifully. Strange to say, our first day's suffering in this respect was the last, and the "irrepressible midge" never bothered us again. This unusual immunity may have been due to the subsequent use of lanoline, or perhaps to thorough, initial inoculation.

Before entering the great corrie of the Bhasteir or Executioner, which, sad to say, has justified its name of recent years, we passed along the side of a remarkable gorge, somewhat like an enlarged edition of Piers Ghyll in Cumberland. We recognised it as the gully climbed by some famous mountaineers a few years previously. Some small lakes are formed in the bed of the gorge between the pitches, and as the walls on either side proved impossible, the party swam the various water obstacles and climbed most of the other parts *in puris naturalibus*. This performance is most remarkable, because not since Noah's day is there any record of a mountain being ascended by water.

Above this almost classical place we gained the bed of the corrie which, despite the gradual uphill walk of over three miles from Sligachan, must be under 1,500 feet in height. The Pinnacles were aggressively obvious on our left, and the peak, whence the corrie derives its name with

its "fang-like sentinel" to the right, was the most striking feature in the view.

There was no mistaking the way up to the object of our search; as a matter of fact it was a case of go-as-you-please up the open couloir to the *col* between the first and second pinnacles or over the easy slabby rocks to the left. It was scarcely necessary to tie on the rope until the top of the third pinnacle was gained, but from there onward the route abounded in entertaining situations.

The descent of the south side of the pinnacle into the *col* separating it from the fourth or Knight's Peak, was the only part of the whole climb to which the word difficult could be applied. There were two ways of passing this section, but we chose the one straight ahead in preference to an easier-looking chimney to the right, which was only approachable on this occasion by traversing across a sloping slab covered with an unsound glazing of ice. The other, the more direct route, overhung slightly at one point in its lower part just before a capacious ledge was attainable. Coming down as last man with a heavy rucksack on one's back adds to the excitement of this place, but a rope doubled round an outstanding rock up above would make the descent comparatively easy even for beginners.

The gully between the pinnacles was filled with ice and snow, but steps were soon cut across below a small cornice, and the scramble up to the cairn on Knight's Peak, like the whole of the Pinnacle Route, proved easier than it looked.

The descent to the next *col* was one of the steepest parts we encountered, but the holds for both hands and feet were so large that the sensational nature of our situation was not realised until we had gone some distance up the final peak and glanced back at the way we had come.

About four hours after leaving the inn our first Coolin was underfoot, but the pace at which we had moved induced the punster of the party to aggravate our discomfort from the heat by making remarks about "coolin' drinks." A little later in the year it would have been a dry undertaking, but on this occasion we found a snow patch below, and on

the west side of the summit, and this somewhat alleviated the first day's thirst.

Our pre-arranged programme had been to cross Sgurr nan Gilleann, and, after descending its west ridge, to traverse over the various peaks of Bhasteir to finish our day's climb still farther along the main ridge at Bruach na Frithe. This was a pretty plan, but the westering sun reminded us that in consequence of the late start, some time after midday, and the unexpected time involved in climbing along the ridge, the other peaks must wait till the morrow. The alternative would mean spending a night on the rocks. This would have been no serious matter; the weather was perfectly settled and the rocks had absorbed so much warmth during the day that, but for a scarcity of provisions, we could have passed the few hours of darkness in comfort.

The view from our resting-place was magnificent, and not one to be forsaken hurriedly. The whole range was spread before us from end to end; each rocky peak to the south was tipped on its further side with a rich orange-coloured glow, but nearer, the crest of the Bhasteir and his neighbour stood out black and stern against the light background. The wide circle of peaks around the head of Coruisk was bathed in a deep purple gloom, whilst, far below, the valley near the lonely loch seemed already wrapt in the shades of on-coming night.

Some fleecy evening mists moved lazily amongst the higher peaks of Alasdair and Sgurr Dearg, but as we began the descent the latter mass pushed its tip through the vapour, and we at once recognised the curious pinnacle that forms its actual summit. Mountain grandeur rarely appeals to the comic side of one's nature, but somehow this first sight of the "Old Man of Skye" caused us to laugh simultaneously. It seemed to be stuck with such a comical tilt on the crest of Sgurr Dearg. The peculiarity of the situation compared so strangely with its sombre, solidly-built neighbours, that our only impression of it was one of amusement. Other parties have been similarly affected by their first sight of the Inaccessible Pinnacle of Sgurr Dearg.

However, the sharpness of the ridge quickly diverted our

attention, for we suddenly came to what is one of the most unique sections of the whole Coolin Ridge. Softer rocks seemed to have weathered away perpendicularly on either side and left a narrow ridge extending for several yards before it widened out on a further buttress. If it is possible to imagine a few score of building joists reared on end and placed side by side across a street so as to afford a passage along their tops, it would convey some idea of this wonderful place. But this rocky structure in the Coolin stands above sensational precipices on either hand, and further to add to the interest of the traverse, a pinnacle of rock known as "The Gendarme" is perched somewhat insecurely on the top of the narrow section at a point where it widens slightly near the centre. If seen from either side, the holes where daylight peeps through at various places in the body of the ridge conduce to the general effect of instability. We knew from the experience of others that no good purpose could be served by looking at the obstacle, for its appearance had deceived many parties to the extent of causing them to beat a retreat.

I advanced cautiously along the sensational edge, and, after some Blondin-like balancing, was able to grasp the "policeman" affectionately round his neck. This afforded a good grip until the body could be raised and swung round and across to the continuation of the *Pons Asinorum*, as our last man most appropriately called this well-known feature of Sgurr nan Gillean. The name is certainly justified in windy weather, for the place may be felt to vibrate ominously under such conditions. Just beyond the end of the narrow section we found a chimney on the right, which afforded an easy descent into Corrie Bhasteir, and after an exhilarating glissade down some soft snow-slopes, we scampered quickly over the moors to Sligachan.

Some further information on other routes on Sgurr nan Gillean may be useful to both experts and novices. It is at present scarcely necessary to cross "The Gendarme" on the west ridge, as there are two fairly easy gullies leading into Bhasteir Corrie just before the ridge becomes constricted. One of these is called Nicolson's Chimney, but there seems no possibility of finding out definitely which of the two was used by the famous pioneer.



Abraham

“MIDST THE COOLIN”

THE GENDARME ON THE NARROW WEST RIDGE OF SOURR NAN GILJEAN STANDS ON THE RIGHT. THE HIGHER PEAK IN THE DISTANCE IS THE BHASTEIR

There is also a moderately difficult rift in the westerly face of the Sgurr, which starts about 50 yards to the south of the foot of the gully between Knight's Peak and the summit. This latter gully also yields a still easier route, though it is usually damp and slippery.

The climb from the west up to the *col* between the Third Pinnacle and Knight's Peak has only been completed on one occasion. It is excessively difficult as well as dangerous, on account of loose rock near the top. Undoubtedly the finest rock-climb pure and simple on this side of the range is the course up the western front of the Third Pinnacle. Huge, almost vertical slabs prevail in the lower portion, whilst higher up, a difficult chimney, with firm but scarce hand-holds at the summit, makes the course absolutely unsuitable except for experts. The gullies between the other pinnacles are of a milder character, and some very enjoyable scrambling can also be found on their retaining buttresses.

It should be pointed out that the favourite route up Sgurr nan Gilleann over the so-called "five pinnacles" may confuse many intending climbers, because the first and even the second peaks are not easily distinguished. No serious climbing is usually undertaken on these, but if the north or the front side of the first pinnacle facing Sligachan is tackled, as an introduction to the Pinnacle Route, much more interesting work will be found there than anywhere throughout the usual course.

A moderately active party, if they made a reasonably early start, would find it possible to include the complete traverse of the Bhasteir and the Tooth in the same expedition as the Sgurr nan Gilleann Pinnacle Route. The way from below the Gendarme Chimney on the west ridge to the top of the Bhasteir is unmistakable and easy, but the descent thence on to the upper part of the Tooth requires care. The rock overhangs slightly at one part for about 10 feet, but there is a good ledge immediately below, and the last man can be assisted by his companions. A short distance lower the *col* is within reach, whence it is an easy scramble to the point of the Tooth, but the continuation of the traverse directly down the steep face in the direction of the main

ridge will prove much the most difficult part of the day's work.

To achieve this it is necessary to descend about 50 feet from the summit until an obvious cairn is seen on the Lota Corrie side marking the place where the upper crack begins. This face of the Tooth is very steep; in fact, it overhangs in sections, but by a combination of vertical cracks and traverses along narrow ledges, the descent can be accomplished safely. On the side of the upper crack there is a satisfactory hitch for the rope; the climber descending last would be well advised to make use of this. The most awkward section is a rather smooth slab just below the higher crack.

The climb just described should be tabooed by beginners, for though the hand- and foot-holds are satisfactory, the situations are sensational, even speaking from the Coolin standard on such matters; and fairly long stretches are to be passed before good resting-places are available.

Ordinary parties usually follow the long and monotonous couloir that runs down from the *col* between the Tooth and the Bhasteir to the loose stones in Lota Corrie. Thence a considerable *détour* and a laborious ascent over broken rocks will lead up to the main ridge. Of course it is possible to walk down the Lota and Harta corries to Sligachan, but, though the way over the ridge and down by Bhasteir Corrie is temporarily more tiresome, it is shorter and less temper-trying on account of the comparative absence of boggy ground.

The uninviting-looking chimney, which descends from the *col* on the Sligachan side of the Tooth, is called the Bhasteir Nick Gully. To judge from the description of its ascent, the course savours more of speleology than rock-climbing. Apart from the complications incidental to creeping under, over, around, across, and "inside" heaps of slippery, slimy boulders, for the most part in underground darkness, there is no serious difficulty in the climb.

From one point in an upper storey of the "Nick," a party threatened with the chance of becoming benighted might hitch a long doubled rope (say 120 feet) around a conveniently placed chock-stone, and thus effect an escape to Sligachan.

During the visit to the Coolin in 1896 we had the good fortune to encounter a famous artist and climber, a veteran

and respected member of the Alpine Club, who very kindly asked us to spend a night or two in one of his camps near the outlet of Loch Scavaig. The weather was quite settled, in fact we never saw a drop of rain that first holiday in Skye, so we were somewhat loth to spend a night out at such a low level. We held that quite as comfortable a night could be spent at a greater height in closer proximity to the climbs. However, our artistic friend's enthusiastic eloquence regarding the delights of sleeping on one of his heather-beds, and other equally potent arguments, induced us to arrange the following three days' programme, which has since been repeated with variations. A short description of the routes followed may induce others to plan out their expeditions on somewhat the same lines, and there is no better way of gaining an insight into the heart of the Coolin.

The main idea was to spend the first day on Clach Glas and Blaven, the second in crossing over the main ridge to Glen Brittle; and after a night there, the third day was to be spent climbing Sgurr Dearg's Inaccessible Pinnacle on the way back to Sligachan over Sgurr Banachdich, Greadaidh and several peaks on the main ridge. All the plans were carefully worked out for food supplies to meet us at various places, but we reckoned without mine hostess, the landlady of Sligachan to wit. Sad to confess, we had lost all count of the days of the week, and it turned out that the one we had arranged for the ponies to carry our belongings over to Coruisk was the "Sawbath." Orthography quite fails to convey an impression of the utter contempt expressed in our hostess's pronunciation of the word; nobody but the most miserable sinner would dream of anything but a lazy day of rest, and gladness induced by much "whuskey." A species of popular excommunication or boycott would result if the necessary ponies and a gillie were supplied. Matters have improved somewhat in these respects at Sligachan, but the tourist would do well to bear the point in mind whilst travelling in the far north, specially when transport arrangements are being considered for the journey back to the workaday world. However, fine weather is so rare in the "Isle of Mist," that we decided to postpone our day of devotions. Thus, in conformity with our programme, we set off down Glen Sligachan, our backs piled up with huge

loads of food, cameras, and other usual necessities. 'Tis a wearisome grind at all times, and we were glad to reach the shores of Loch an Athain and deposit the loads in a safe place at the foot of Drumhain, to be called for on the return after the day's climb on Clach Glas.

After crossing the boggy ground to the Black Hut, which stands in a great hollow below Clach Glas, we continued up the grassy slopes of Stony Corrie. It seems strange irony that this place should bear this name, as it is practically the only valley in the Coolin that does not deserve it. Other *débris*-stricken corries, where the rubbish and loose stones from all the surrounding peaks appear to have been deposited, possess the mildest and most poetical names. The contrast between Stony Corrie and Corrie Greadaidh (pronounced Greta, the running water) is painful to think of, specially for one who has wandered at twilight amidst the intricacies of the latter's boulder-strewn slopes.

Higher up we entered the recesses of Lonely Corrie and the towering pillars of Clach Glas on the one hand, and the great precipices of Blaven on the other, with no signs of life but the screech of invisible birds of prey, rendered the name most appropriate.

The great tower of Clach Glas looked most imposing and inviting, bathed in broad sunlight which robbed the great slabs of all appearance of difficulty. A direct attack on these soon revealed the deception, for the "boiler-plate" formation at one point would have caused such delay that the pleasure of sleeping in our friend's heather-bed at Coruisk would probably have been exchanged for the discomfort of a bare slab on our peak's western face, if the attack had been continued. So we traversed away to the left and ascended to the main ridge by an interesting gully, which was the second one we noticed after passing the foot of the wide cleft which runs up to the conspicuous *col* below the final tower. On a later occasion we found a comparatively easy way up the western face of the great tower more to the right and almost in the centre.

Once on the upper ridge the appearance of the peak made us understand why it has been called the Matterhorn of Skye. It is not wise to analyse these comparisons closely, but suffice it to say that Clach Glas as seen from the north is

one of the shapeliest peaks in Great Britain. Under normal conditions the ascent is perfectly simple if care is observed in keeping off the western face. The last 200 feet from the *col* below the final tower to the cairn was the only place where we thought it advisable to use a rope.

In those days the eagles of Clach Glas used to make the topmost rock their lookout tower, and, though they were not on view that day, evidences of their recent presence were scattered about. From the top we were able to look back along the ridge to the *col* between Clach Glas and Garbh Bheinn; this is the ordinary route up the peak, and does not present any technical difficulties.

In the other direction a long insecure arête provided interesting progress to the bealach between our mountain and Blaven. There, a steep rock wall about 15 feet in height stopped combined movement, but once the leader was established on a loose turf ledge that decorated its crest the others followed with ease.

On our right the face of Blaven looked stupendous in the afternoon light, and we were almost tempted to explore its shattered pinnacles. However, lack of time necessitated a postponement of the pleasure, and, after mounting an easy 60-foot chimney some distance above the "steep wall," an easy walk led to the top of Blaven.

Our lunch had been left on Drumhain, so we hurried down the latter part of the way we had come, and after practically jumping down the "steep wall" to the last bealach, we hurried down the two corries to the Black Hut.

In two hours' time after leaving the summit of Blaven we had resumed our baggage, and were picking our way down the well-known path from Drumhain into the "den of Coruisk."

Poets and painters have each in their respective ways so extolled the glories of "wild Coriskin" that when the reality is visible a sensation of disappointment is apt to intrude. At least this was our earliest feeling that beautiful May evening, and I fear that many others who approach the scene from Loch Scavaig and the sea must have experienced much the same impression. Unfortunately, Loch Scavaig does not offer such opportunities to the rhymester, and this probably accounts for

its comparative neglect in favour of its less impressive but far-famed neighbour.

But those who only see Coruisk from its popular end, do not really gain any adequate idea of the stern grandeur of this wonderful corrie, with the rock-encircled loch reflecting in its clear depth the great mural precipices with their splintered summits, frost-riven and weathered into the weirdest and strangest forms. A walk far up by the shores of the lake into the heart of the Coolin will reveal the true beauties of the scene, and neither pedestrian nor rock-climber will then feel disappointment with this, one of nature's most savage retreats.

The observant traveller will perhaps be unable to reconcile the reality with Sir Walter Scott's description when he says he "distinctly observed the termination of the lake under an immense precipice that rises abruptly from the water." As a matter of fact, there is a beautiful, level, grass-covered tract of land extending over a mile from the head of the lake before the mountain slopes begin, and these to a great extent recede at an easy angle; the "immense precipice" can be ascended at several places by an active walker, who would scarcely require to use his hands at all. This pasture land at the head of the loch is a favourite camping-ground; as a centre from which to explore the bulk of the peaks it is unequalled.

Campers would be well advised not to pitch their tent at about the level of the lake or too near the bigger crags. In the former case it should be remembered that the oft aggressive elements may

"rouse them by that dread shore"
That sees grim Coolin rise and hears Coriskin roar."

A camp too close to the crags would be unsafe because rock-falls are common here in the spring-time. This has no reference to the lower end of the valley, which is free from the latter danger, despite Scott's lines about "chance-poised and balanced crags hurled headlong from the mountain hoar,"

"A mass no host could raise
In nature's rage at random thrown."

This is evidently a reference to the *roches perchées*, but critics should grant some allowance for the poet's artistic licence.

Anyhow, these matters did not trouble us when we reached Coruisk late in the evening after our day on Clach Glas and Blaven—we were glad to partake of a hurried meal and turn into bed, which proceeding caused our kind host, who occupied a neighbouring tent, some disappointment, for he was famous for his hospitality and the way in which he brought forth tempting luxuries which were hidden in the surrounding rocks. We had heard the well-known story of three weary climbers who, on their way from Sgurr Dubh to Sligachan, had been entertained *en route*, and how one of them had expounded the riddle: “Why was — a better man than Moses?” The answer may scarcely please extreme temperance reformers, but it ran, “Moses only brought water from the rocks, but — brought whisky!”

However, further details of our experience in such pleasant company must be withheld, suffice it to say that the much-extolled heather bed was a brilliant failure, and none of us ever wish to test its merits again. A mass of stiff heather stalks stuck into various tender parts of the anatomy are not conducive to peaceful slumber. In my own case, partly for this reason, sleep was impossible; but to add to the trouble, a family of water-rats seemed to be spending the night gnawing away at the edges of our tent, and my night or early morning hours were spent in chasing them back to the river near the outlet of the loch.

Fortunately the period of darkness was very short; so at 2 a.m. it was a pleasant change to leave our beds; and when a frugal meal had been disposed of we were glad to make a start, after carefully arranging that a good supply of food, etc., was packed in the rucksack.

That early morning walk along the shores of Coruisk, with the golden glint of sunrise tipping the jagged peaks ahead and eventually bathing them in a delicate roseate gleam, was an experience never to be forgotten. The rough four-mile tramp to the head of the Corrie seemed but a dream, and almost before we realised the fact we had passed the impending crags of the main ridge, and were clambering up some easy slabs near the bealach between the North-east Peak, or, as it is now called, Sgurr Tearlach, and Sgurr Mhic Coinnich. The former mountain, Charlie's Peak, derives its name from Mr. Charles

Pilkington, one of the early pioneers in the Coolin; whilst the latter, Mackenzie's Peak, will perpetuate the name of the noted family of guides whose doyen, "nimble-footed John," first climbed it.

After half an hour's easy ascent we stood on the summit of Sgurr Tearlach, with the giants of the Coolin thrusting their gabbro pinnacles into the sky on every hand. Those who have visited the southern part of the range will probably agree that Sgurr Tearlach stands pre-eminent as a vantage-point from whence to see the Coolin. The distant view seawards, with the Hebrides and other far-away isles hanging like fleecy blue balls of mist where sky and sea blend imperceptibly, was enthralling, but nearer objects obtrude upon the mountaineering vision.

Facing northwards we saw the steep end of Sgurr Mhic Coinnich in front, one of the few unclimbed places on the main ridge; and the easy traverse to the left by means of which the overhanging rocks are avoided was obvious. Then the eye was led along the comb-like crest of the ridge to Sgurr Dearg, whose otherwise defiant-looking pinnacle appeared eminently accessible from this side; the long portion of the ridge that arises steeply to its foot seemed much more serious, and those who are acquainted with this section know that its intricacies require considerable time and attention.

Beyond Sgurr Dearg the peaks of Banachdich, Greadaidh, Mhadaidh, and Bidean Druim nan Ramh, formed the various consecutive summits on the main ridge before Sgurr nan Gilleann and its satellites sprang up at the northerly end of the range.

At our feet, but nearly two thousand feet below, lay the glacier-carved hollow of Corrie Labain, with its tiny rock-bound lochan glistening in the sunshine, and beyond its outlet to the left the green slopes of Glen Brittle helped to relieve the austerity of the scene. Still more to the left the huge mass of Sgurr Alasdair (Alexander's Peak) was only separated from our mountain by the Great Stone Shoot, which rises in one clean sweep of loose scree from the bed of Corrie Labain to the *col*. This provides a simple but painfully laborious route up to these southerly peaks from the Brittle side.

On the opposite or south-easterly side of Sgurr Tearlach

the main ridge continues along over Sgurr Dubh na Dabheinn, until, after rising to the two tops of Sgurr nan Eag, it ends with Gars-bheinn (the echoing mountain), which stands almost sphinx-like calmly defying the fierce Atlantic storms.

The only part of this end of the Coolin ridge to seriously debar an active walker from exploring it is the well-known Alasdair-Dubh Gap. It should be understood that this remarkable break in the ridge is not on Sgurr Alasdair, but separates Sgurr Tearlach from Sgurr Dubh na Dabheinn, and is really situated on the former of the two. The passage down into the Gap from either direction can be simplified by the use of a doubled rope, for suitably placed hitches are available. The ascent up the other side is not so easily overcome, but to assist prospective visitors who know the Cumberland climbs, I may say that the passage up either side is easier than the Kern Knotts chimney climb on Great Gable. The Tearlach side of the Gap is slightly more difficult than that leading to Sgurr Dubh. It should also be mentioned that the two peaks of Sgurr Dubh Mhor and Bheag which are so conspicuous from Coruisk are situated on a branch of the main ridge running almost east from Sgurr Dubh na Dabheinn. There is a simpler small edition of the Alasdair-Dubh Gap between these two peaks.

To return to our journey over to Glen Brittle, we found the drop over the edge of Tearlach to the head of the Great Stone Shoot somewhat exciting, on account of an attempt to climb down from a point too far to the left on Coir a' Grunntha side of the *col*. The way down into this corrie direct from the head of the Shoot has not yet been negotiated. Once in the *col* we found no trouble in scrambling up the other side and on to the top of Sgurr Alasdair, now finally crowned the "King of the Coolin," despite its earlier enforced submission to Sgurr Dearg, and the insult of leaving its grand mass unnamed on the early Ordnance Maps.

Our way valleywards was made along the crest of a sharp arête leading down in a south-westerly direction to Sgurr Sgumain. Various entertaining problems were encountered *en route*, and sensationalism was added by the splendid views downward into Corrie Labain and Coir'a' Grunntha on either side. Wherever the difficulties became too engrossing it was

possible to simplify matters by keeping slightly to the left, rejoining the arête after a slight descent.

Our final arrival at Glen Brittle was delayed because we unwittingly passed the bealach between the two peaks, where an easy gully exists, and we had to force a somewhat difficult way down a series of steep slabs to the foot of Corrie Labain.

Glen Brittle House is a veritable oasis amidst a desert of bare rocky mountains. The Coolin are aggressively devoid of vegetation above the 1,000-foot level, and even lower down they are but poorly clad. Keen mountain-lovers though we were in those days, to the exclusion of almost everything else, I well remember the pleasure afforded by the foliage of Glen Brittle. We had not seen a really green tree for weeks, and our "crag-perverted" vision seemed to find the change altogether delightful. A goodly store of luxuries had been sent over from Sligachan; so after a satisfactory night's rest we were well prepared for the next day's long scramble over the ridge to Sligachan.

Our first *objectif* was the Inaccessible Pinnacle of Sgurr Dearg, so called on the old Admiralty Chart, whose surveyors, probably on this account, gave it the point of honour over Sgurr Alasdair, which, with its height of 3,275 feet, is only 20 feet higher than the "Inaccessible Peak."

During our walk up the long western ridge from Glen Brittle an unusual experience befell us which relieved the monotony of the scramble over the upper portion. Whilst making our way slowly along on the Coire na Banachdich side of the ridge a curious whirring sound above us suddenly attracted our attention. A quick glance upwards revealed, only a few yards away, a magnificent specimen of the golden eagle. It was so close that we felt the disturbance of the sultry atmosphere by its powerful wings, and could detect the look of surprise in its eyes. It had flown up over the crest of the ridge from the Corrie Labain side, and when our presence was detected the noble bird suddenly arrested its flight and remained for an instant poised artistically above us. Almost instantly it recovered from its fright and disappeared whence it had come, into the depths of the Corrie. Our unanimous remark was, "Oh, for a camera prepared for such a sight!" It is not every day that the golden eagle poses so appropriately.



Abraham

THE INACCESSIBLE PINNACLE OF SGURR DEARG

amidst such surroundings, and the opportunity has never occurred again.

Arrived on the top of Sgurr Dearg itself we began operations on the western side of the Pinnacle, and found no serious obstacle in the ascent. The only stretch that could be called difficult was about half-way up, where it was necessary to draw the body upwards from a diminutive standing-place on to a sloping slab which was provided with meagre hand-holds. At first there was an unsettling feeling that these excrescences were not sufficient to prevent one sliding backwards off the slab into space, but a few feet higher a deep crack accommodated the whole of one's fingers, and ample holds were soon available on the right.

The upper portion, which appeared so difficult from below, proved to be simple and safe, for the rough arête was weathered into a series of small pinnacles. The lower of these facilitated the descent, and an eighty-foot, doubled rope proved just long enough to allow the last man to reach the almost level top of the Sgurr in safety.

It may be noted that the usual and easiest way up the Pinnacle is from the east side. The route lies up a fantastically shattered arête, where the holds are almost too plentiful, but the narrow and somewhat loose nature of its crest adds considerably to the interest and excitement of the ascent.

There is a ferocious-looking crack in the side of the Pinnacle facing Corrie Labain. Its ascent was generally considered impossible, but a party of Englishmen reached the summit by this route early in 1906.

After thoroughly exploring the principal object of our expedition we spent the rest of the day "ridge-wandering" over the four tops of Sgurr na Banachdich, and exploring Sgurr Greadaidh, which seems more difficult to pronounce than it is to climb. The same word appears amongst the Cumbrian Mountains, but there it is in the simple form of Greta, which philologists say means flowing water. Those who have seen the Coolin in storm will understand how appropriate the name is, for then the great slabs on the Coruisk side of Sgurr Greadaidh appear almost like one vast water-slide.

Sgurr na Banachdich (the small-pox peak, probably so called on account of the spotted nature of the rock) possesses four

distinct tops, and the third one from Sgurr Dearg is the highest (3,167 feet). Of Sgurr Greadaidh's two summits the farther or northerly one seemed the highest, and, though no height was given on the Ordnance Maps, it must be quite 20 feet higher than "Old Small-pox," as its neighbour has somewhat irreverently been called.

On the farther side of Sgurr Greadaidh there was a fine view of the complicated mass of Sgurr Mhadaidh (pronounced Vahtee), the foxes' peak. We had had enough of the ridge for that day, so we made a way over the South Peak of Mhadaidh and down into Coire a' Greadaidh. Then after crossing a bealach on the branch ridge of Thuilm we descended to Corrie na Creiche, whence Sligachan was reached after two hours' easy walking over the heath.

Rock-climbers will usually agree that the part of the Coolin ridge between Sgurr Dearg and the South Peak of Sgurr Mhadaidh is the least interesting of the whole range, though the magnificent views will repay the wanderer. There are numerous short bealachs and pinnacles which now and again call the hands into requisition, but the attention is kept engaged more or less all the time, and the hours fly by all too quickly.

The rest of the main ridge which still remains unmentioned is that including the three peaks of Sgurr Mhadaidh and those of Bidein Druim nan Ramh (pronounced Bidein Drim na Raav), which is translated as the peak of the ridge of oars. There is also a short section which includes the Castles, between the Bidein and Bruach na Frithe, but it possesses little attraction for the rock-climber. There is no finer course in Skye than that over the former series of peaks. It has the advantage of being within reach of Sligachan if an early start is made.

The most entertaining way is first to make for the bealach on Sgurr Thuilm, which is gained from Corrie na Creiche. By following the crest of the Sgurr a deeply-cut chimney is soon visible leading up to the main ridge near the Third Peak of Sgurr Mhadaidh. Thence the route over every top to the Bidein is unmistakable, and the rock-climbing is at several places sensational and absorbing, but the wonderful scenery on either hand must not be missed. There is a deep cleft in the

ridge before the second summit of Mhadaidh is gained, and the ascent thence is up a vertical wall quite 80 feet high.

The Bealach na Glaic Moire is passed before the three Bidein can be attacked, and it is interesting to know that this is one of the oldest passes in the Coolin, and is constantly used by those coming from Coruisk to Corrie na Creiche and the Glen Brittle Road.

The various tops of Bidein are of typical gabbro structure, and though never monotonous the traverse of them offers no serious difficulty, but the direct climb of the North Peak is usually considered hard enough to be avoided on one side or the other.

From the central and highest top (2,860 feet) there is a branch ridge, the Druim nan Ramh, running in a south-easterly direction and dividing Coruisk from the Harta Corrie. The ascent of the peak from Sligachan by means of this ridge is a favourite outing with many climbers, and there is one fairly difficult place where the rocks assume a steep angle some distance below the summit.

The descent in either case is usually made by Corrie na Creiche, but good walkers will approach Sligachan almost as quickly and much more pleasantly by following the main ridge over Bruach na Frithe and then going down to the hotel through Fionn Corrie.

The great buttresses which thrust their massive forms down into practically all the corries on each side of the main ridge yield the finest and most difficult courses in the Coolin. A good many of them have not yet been climbed or even explored, and there are innumerable arêtes, gullies, chimneys, and cracks *ad infinitum* absolutely untrodden by human foot. Some of the most conspicuous places have been attacked, and a few remarks on the most important of these will probably assist future visitors.

The north-western face of Sgurr Alasdair, which descends grandly into Corrie Labain near the head of the loch, provides over 1,000 feet of good climbing. The route continues nearly all the way up a steep rib of rock just to the right of the Great Stone Shoot. There are several loose sections, and near the top it is advisable to keep more on the western side, where it is possible to find an easy exit on to the summit quite

close to the cairn. Though somewhat vertical and sensational in places this face of Sgurr Alasdair cannot be called technically difficult, but it is slightly harder than the Pinnacle Route of Sgurr nan Gilleán.

The fine rock pillar known as Cioch a' Sgumain is quite a recent discovery, and it is situated on the north-westerly side of the long ridge which slants gradually down from Sgumain to near the head of Loch Brittle. One of the leading modern authorities on Skye, Mr. Colin B. Phillip, says that it stands on the front of the grandest precipice in the island. These crags, which he named Sron a' Ciche, are remarkably steep for over 1,200 feet, and ere long the place will doubtless become a favourite haunt of the experts. Dr. Norman Collie, who has been concerned in almost all the recent higher developments of the sport in the Coolin, is responsible for most of the climbing done hereabouts. After a brilliant piece of mountaineering he succeeded in finding a way up the Cioch, or Pap, in 1906. The route appears to have been somewhat complicated, and from a *viva voce* description one gets the idea that it might roughly be described as of the "spiral staircase variety." A famous mountaineer who joined in one of the later ascents has described it as the finest rock-climb in Great Britain. But this is a term commonly applied to any extraordinary, new climb just after its discovery, and doubtless the latest addition will in due course suffer the usual modification.

The south-east ridge of Sgurr a' Greadaidh is a most inviting-looking buttress which descends from the top of the mountain to near the head of Loch Coruisk. The climbing starts at a point scarcely 400 feet above sea-level, and thus provides over 2,500 feet of continuous ascent up rocks that are wonderfully sound and clear of vegetation, except at the very beginning. It is advisable to start operations to the west of the waterfall that descends from Coire an Uaigneis, and the only part of the whole course that would trouble an expert party is situated about 400 feet higher, where a steep slabby wall of gabbro, with rounded holds, rises for over 150 feet. Above this the angle of the buttress becomes less severe, and a long sloping traverse in a westerly direction, followed by another at a higher level to the east, will bring the party out

on the arête of the South-East Ridge near the summit cairn of Sgurr Greadaidh.

The Castles have not until quite recently loomed very largely in the rock-climbers' eye, but early in 1905 a large party of experts discovered an interesting route up the south peak. Some of these pioneers brought away a strong impression of the difficulty of the course, but this was doubtless due to the bad weather conditions, as those who followed their footsteps found the place most amenable to attack in several directions. The climb starts from the head of Harta Corrie, and can be reached in two and a half hours from Sligachan *via* the "Bloody Stone."

A well-defined buttress stretches practically to the top of the south peak, and the way for the most part runs fairly well up its crest. Scarcely two hundred feet above the commencement some steep, smooth, ice-worn slabs require skilful treatment, and an upward traverse to the left is eventually necessary. Avoiding the fine-looking gully on the left an obvious little chimney higher up gives access to the buttress above the difficult section. Thence to the summit is comparatively easy. There are several available clefts in the upper crags which afford a pleasant means of gaining the indefinite rocks forming the final, battlemented wall of the Castle.

Corrie na Creiche is very accessible from Sligachan, and there are several splendid climbs in its vicinity, notably those leading up to the peaks of Sgurr Mhadaidh. But undoubtedly the most attractive course hereabouts is the famous Waterpipe Gully. This is situated in the nose of Sgurr na Fheadain, which is an off-shoot of Bidein Druim nan Ramh that splits Corrie na Creiche into two sections. That on the left is called Corrie Mhadaidh, whilst "The Thunderer" or Corrie Tairneilear lies on the right and directly under the massive crags of Sgurr Mhadaidh. By some means or other these two corries have become transposed; many climbers are misled by finding Corrie Mhadaidh entirely separated from the peak after which it is named. It is hoped that this correction, amongst many others, will be made in future maps.

The "Waterpipe" is the longest gully climb yet made in Great Britain. There are quite two dozen pitches, and

several of them are excessively difficult. The first party of four experts, who climbed the place without avoiding practically all the finest pitches, took just over thirteen hours to complete their *tour de force*. Another party of three Englishmen early in 1906 succeeded in climbing the gully direct from bottom to top over every pitch in rather more than half the time taken by their predecessors.

The obstacles grow steadily more difficult until about two-thirds of the gully has been ascended. Then several small easy pitches, alternating with steep, insecurely-poised screes, lead up to the final narrow chimney, which will sorely try the strength of even the most skilful expert who has led up the lower portion. For those who fail here and, following the example of others, discuss the advisability of staying out all night in the gully, it may be useful to know that a traverse leads out and away to the right near the top of the narrower part.

There are three or four easy jammed stones in the continuation of the bed of the gully higher up, and an abnormally energetic party could expend any surplus energy in traversing over the peaks of Bidein, making a descent by Druim nan Ramh, and finally walking to Sligachan by Harta Corrie. The next day would probably be spent in the vicinity of the hotel.

In conclusion, it would be well to accentuate the fact that bad weather conditions affect the peaks and ridges of Skye to a greater extent than any other British mountains. In other districts it is generally possible to push on the attack to an extreme point in the comforting knowledge that there is an easy walk down to the valley from the end of the real difficulties. This is not so in Skye, and at times as great skill, judgment, and mountaineering knowledge are required as in the most difficult Alpine expeditions. As an instance, the traverse of an easier part of the main ridge, such as that embracing Sgurr Banachdich or Greadaidh, may become absolutely unjustifiable. When the roar of the Atlantic is borne upwards on the gale, and the spindrift tears in mad hunt across the exposed ridges, blotting out all the recognisable landmarks, the real terrors and dangers of the grim Coolin are all too apparent to the climber who

is clinging, "with every pulse alive and every nerve athrob," to the crest of these storm-shattered giants. But there is life and joy and health in these battles with the crags and elements, and though many may not appreciate the pleasures of such stress of circumstances, the Coolin will ever possess a strange fascination for all true climbers, "the latest Nibelungs, the modern Children of the Mist."

PART III

MOUNTAINEERING ABROAD

CHAPTER XVII

THE SWISS ALPS—THE VALLEY OF ZERMATT AND ITS PEAKS

“And mountains that like giants stand
To sentinel enchanted land.”—SCOTT

THE belief of some earlier mountaineering authorities “that climbers, like poets, are born not made,” has almost become extinct owing to the modern developments of the sport. The gullies and cracks of Cumberland, the buttresses of Snowdonia, the faces, arêtes, and ridges of Caledonia and Coolin, have all served as means to dissipate the romantic theory; and the skill and knowledge of the craft possessed by the “home product” would astonish even the most conservative of the pioneering theorists.

It is a generally recognised fact that a fairly strong, athletic man, or even woman, may, if possessed of ample nerve and skill, and more ample purse, be pulled and pushed up the most difficult climbs in the Alps by two expert professionals, and that without any previous experience of the sport. The process is apt to be painful, and not conducive to mutual self-respect amongst those concerned; nor will it meet with flattering approval from more enlightened friends. The vexed question as to whether such travellers are really mountaineers, or merely so much “human baggage conveyed from point to point by over-paid Swiss peasants,” will scarcely interest the true mountain-lover.

Suffice it to say, that the man who derives the greatest

pleasure from the Alps is he who has learnt to appreciate their difficulties, and spent probably years of judicious preparation on the homeland climbs before tackling the "greater game."

Whilst agrip with the intricacies of the Crack of Kern Knotts on Great Gable he has thought respectfully of its famous compeer on the Aiguille de Grépon; the icy gullies of Great End have helped him to see in imagination the ice chimneys on the Charmoz or the terrific couloirs of the Schreckhorn; the long, bare, disintegrated arêtes of the Coolin, perchance clad in the remains of winter snow, have conjured up in his mind that most fascinating of all Alpine peaks, the Matterhorn, with its delicate, snow-tipped summit, rising dreamily far above the shattered crags and slabs that form its supporting bastions.

The joy of anticipation is probably greater in mountaineering than in any other sport; and glorious as are the homeland mountains, the Alps are undoubtedly their superior. Thus, develop his craft as he may, the carefully-trained British climber will never be disappointed when he comes to grip the stupendous crags and explore the everlasting snows of the Alpine giants. There he will find an outlet for his fiercest enthusiasms, and a demand for every iota of his skill.

There is some difference of opinion as to whether a mountaineer's initial attempts in the Alps should be made from a favourite centre amongst the greater peaks, or whether he should begin on some of the minor heights that rise around some less-known tourist resort. Personally, I may say that the latter advice was strongly urged upon me by a famous expert, but despite all arguments my first experience of the Alps was acquired around Zermatt, and I would strongly advise others who have learnt the feel of the rocks at home to do likewise.

Zermatt is famous for three things, its possession of the Matterhorn, the variety of the climbing available, and its smells. It may be remarked in passing that these last do not as a rule affect the mountaineer seriously, because he will spend most of his time in the higher, purer air, and of quite recent years sanitary improvements bid fair to deprive

Zermatt of one of its distinguishing features. Sufferers from the original conditions used to betake themselves to either of the two hotels on the Riffel or that by the Schwarz See, and even nowadays these places possess many advantages.

Of course the vast stream of holiday-makers flows up this and other popular Alpine valleys during the months of August and September. The branches of this stream permeate practically everywhere, the easy passes and minor peaks are almost submerged, whilst under favourable conditions the flood surges round the crests of the stateliest of all the Alps. The more accessible glaciers, which Ruskin describes as "those silent and solemn causeways . . . broad enough for the march of an army in line of battle, and quiet as a street of tombs in a buried city," absorb the bulk of the flood; but more recently the railways have acted as a convenient overflow, which must be reckoned to their credit.

Unfortunately "the boy set free from school-work rules the world" so far as the holidays are concerned, and comparatively few people can get away to the "Playground" before the months previously mentioned. For those who can leave home earlier the latter half of June, appropriately called the month of flowers, and the whole of July usually offer more settled weather conditions than the more popular season. Many of the great peaks are generally in good climbing order about the middle of June; and as late as the middle of October I have seen the Matterhorn and its neighbours in absolutely perfect condition. However, one heavy fall of snow at this time of year usually puts a stop to serious climbing, as the sun has lost most of its melting power. If the climber is present in Zermatt when the weather breaks he will be able to appreciate the appropriateness of the following lines from one of the Hotel Visitors' Books:

"First it rained and then it blew,
And then it friz and then it snew,
And then it fogged and then it thew,
And very shortly after then
It blew and friz and snew again."

Under such circumstances home is the best place, the mountaineering season is over.

But it is more cheery to think of the beginning than the end of a holiday, and at the outset it may be stated that the best approach to Zermatt from England is *via* Paris and Lausanne. From the latter place a delightful railway journey carries the traveller along the pension-besprinkled shores of the Lake of Geneva and into the deep valley of the Rhone. Fine views are obtained *en route*, notably of the Dent du Midi and the Dent du Morcles, until, just when the journey shows a tendency to become monotonous, the lumbering train draws up at Visp, where we dismount.

The little mountain railway now takes possession of those bound for Zermatt. Up we go along the narrow, gorge-like valley, first on one side then the other. At one time great, gaunt crags are peeping down on us through openings in the pine slopes; at another, we are gliding giddily along the side of a precipice, or across a frail-looking bridge of spider-like construction, with appalling glimpses far down into rocky chasms, where the turbulent little Mattervisp thunders down from its glacier birthplace to the more open and peaceful bosom of the Rhone. Now and again, far above us, the afternoon mist may lazily drift aside and perchance disclose enchanting peeps of the everlasting snows.

St. Nicholas, with its curious church spire, is the first village of note to be passed, though it might be mentioned that at Stalden, the first station after leaving Visp, those who are bound for Saas-Fée must alight and betake themselves to more primitive means of conveyance. It is a good half day's journey either by "shank's mare" or on mule-back.

St. Nicholas is famed for its guides; the names of Pollinger and Lochmatter are indissolubly associated with some of the greatest Alpine achievements. Strangely enough, until about two years ago they had one of the few unclimbed peaks towering above their native place. This is called the St. Nicholas Gabelhorn (10,276 feet), and its conquest was only made after a rope had been carried over the final section by means of a rocket, which proceeding was only rendered possible by a lavish expenditure of *trinkgeld*, and a special tariff wrung from the highest bidder after years of bargaining.

At Randa, the Mischabelhörner are conspicuous on the left, whilst the still grander mass of the Weisshorn on the right is somewhat dwarfed by the stupendous cliffs which wall in that side of the narrow valley. Higher up the view becomes more open, and looking backwards the Dom is seen, almost from base to summit, in all its magnificence. Every trainload of passengers seems moved by the sight, and as a rule the ubiquitous American is there to inquire the name of the peak, and follow with the usual horrible pun, "Dom foin mountain that, eh!"

Ere long the valley narrows again, and, after winding through the gorge, the little mountaineering locomotive pants to the top of the last gradient, drags us out to the level with what sounds like a shrill whistle of relief, and sweeps swiftly round a corner of the cliff on the right, when the Matterhorn bursts suddenly into view in all its glory. The cosmopolitan crowd in the train will usually stare enraptured for a few seconds, and then cheer the great peak to the echo. The echo varies inversely with the number of Britons in the train; it does not seem a natural trait for us to cheer in the presence of Nature's most marvellous handiwork.

The village of Zermatt is more interesting than most of the well-known climbing centres; even *kursaals*, *bierhalles*, and German bands have failed to counteract its natural attractions and beauties. Its climbing associations are unique. The somewhat modernised Monte Rosa Hotel still recalls those early days when Tyndall, Leslie Stephen, the heroes of the first conquest of the Matterhorn, and a host of others frequented the valley and made it, as well as themselves, famous.

The little "God's Acre" close by the climbers' hotel at the south end of the village bears all too striking testimony to the fact that mountaineering may prove dangerous. On the north side of the picturesque church are, amongst others, the graves of three victims of the terrible Matterhorn catastrophe of 1865. The body of Lord Francis Douglas was never recovered. Doubtless he lies somewhere below that huge, northern precipice; the great obelisk of the Cervin is his tombstone, surely the most fitting monument to the memory of a mountaineer.

Neither is Zermatt devoid of comparatively ancient history, though in those days it was known as Praborgne or Prabornny. From early traditions it is supposed to have existed more or less as a village about seven or eight centuries ago; and, still earlier, in the fourth century, the Bishop of Sion, St. Théodule, passed through the valley on his way over to Italy by the pass that now bears his name.

The recent discoveries of Roman coins near the top of this pass (10,890 feet) would suggest that it was traversed in still earlier times. Some of these coins used to be on view in the Zermatt museum, and the fact that such large numbers have been found at various times and that they date back as far as 200 B.C., would almost prompt the suggestion that there are earlier pages of mountaineering history unwritten. The discovery of such Roman relics on the top of the Matterhorn would, to say the least of it, cause somewhat of a sensation; and when we recall the marvellous performances of those hardy warriors who, as a matter of course, built roads over mountain-tops in Britain, the idea scarcely seems altogether unreasonable. If some practical joker should take the hint and, to invent a scare, deposit a few coins amongst the summit rocks, he should take warning from the case of the hotel proprietor who made his hotel famous by burying such remains in the vicinity, and luring some archæologists to come and find them. After much popular excitement and a rush for the treasure, we are told that his little plot was spoilt by the discovery of a modern trouser button amongst the débris. Unfortunately, mine host held that it was part of the relics, and that the initials J. S. which it bore actually signified that its ancient owner was no other than Julius Cæsar himself.

However, to return to present times, it may be mentioned that Zermatt consists of one principal street, which is lined for the greater part of its length with shops and hotels. Practically all the necessities and luxuries of life can be bought in the village, which, during the season, is singularly up to date in most respects. A local newspaper is published once a week; it inserts personal paragraphs and "puffs" at a franc a line in the very best London style. There is an

English church near the Hotel Mont Cervin, and it is not a very difficult matter to find a chaplain who is willing to take charge. The museum and "zoological gardens" are close by; both will be found entertaining on an off day, though the disconsolate-looking eagles and chamois seem to cast appealing glances at their visitors. Let us hope they are free ere this.

Another local feature is the low wall opposite the Monte Rosa Hotel. This serves as a kind of natural Bureau des Guides, and when one of them is disengaged he sits on the wall "waiting for something to turn up." Thus the term "on the wall" has become one of general application to all unemployed inhabitants of the village.

Though Zermatt is situated in one of the deepest Valaisan valleys, the Nicholai Thal, it stands at a height of 5,315 feet above sea-level, and this is of considerable advantage to the mountaineer. On this account the ascents of several peaks can be completed each in a single day, if an early start is made; and for the mountaineer who is fresh from home and consequently somewhat out of training, there are several excellent "constitutionals" available. The Gorner Grat used to be the favourite of the latter variety, but nowadays those who travel serenely up to its summit by railway look upon the man who merely walks as a species of lunatic, and some of them are not afraid to say so.

Many people volubly lament the success of these Swiss mountain railways, but there is no denying the fact that, within reasonable limits, they serve a useful purpose. The most hopeless hypochondriac can scarcely fail to derive benefit from a short stay on the top of the Gorner Grat, in close proximity to the eternal snows, and encircled by the grandest panorama of mountain monarchs in Europe.

Unfortunately, the public approval of this method of mountaineering leads to more ambitious efforts on the part of the railway engineers. The Wetterhorn has fallen a comparatively easy victim to their schemes, and, amongst others, the Aiguille du Midi and Mont Blanc are now occupying their attention. It would be as easy to stop the progress of the so-called "stinking, rattling polluter of our English roads, the motor car," by thus unjustly anathematising it, as in like manner to stay the popular demand for mountain railways.

No doubt the ultimate evolution of the air-ship will supplant modern methods, but ere we undertake our mountaineering by this means, it will probably be possible to cross over the top of the Matterhorn into Italy by the Hörnli, Cervin, and Col du Lion mountain railway. There would be stations *en route* at interesting places. For instance, capitalists and engineers would agree that one on the Shoulder could easily be built; it would add vastly to the popularity of the trip if visitors could sit in comfort on a veranda and gaze complacently down that tremendous northern cliff where brave men have perished.

On the top there would be a great hotel in a suitably sheltered position, preferably protected from the east wind. The foundations could be described as dry, sanitation perfect, the air bracing, in fact the advertisements might justly describe the situation as most salubrious. The cuisine would naturally be of the highest order. Oxygen would be "on tap" in all the rooms, charges extra to casual callers and those *en pension*. Mountaineers, as we understand them, would be almost extinct, but those odd individuals whose enthusiasm survived would now and again visit the Matterhorn. The Furggen Ridge would be the only available route, and if a windlass were kept at the hotel to haul them up the final impossible pitch the process would provide excitement for the residents. Several penny-in-the-slot machines would be provided for the production of real avalanches. The *fêtes de nuit* would conclude with a grand illumination of the surrounding mountains, and even the stray climber might be attracted by the magnificence of the spectacle, and probably would steal a peep round the window blind of his bedroom.

However, the prophetic spirit tends to expletion; to revert to more prosaic matters, it may be mentioned that a journey to the summit of the Gorner Grat is the best means of gaining a knowledge of the general topography of the Central Pennine Alps, and those other peaks which so impressively encircle the Zermatt Valley. It may seem suggestive of treason for a climber to say that the views obtained during the ascent by the railway are better than those seen during a walk up the path, or rather mule-track; nevertheless it is so. Those people who object to the smell of machinery and

motors, but whose olfactory senses are presumably impervious to the odours of these mule-infested tracks, will doubtless disagree. They may make enthusiastic mention of the sweet-smelling pines, but these paths savour more of the four-legged beasts of burden. Personally, for this reason and for the sake of the view, I prefer to travel by the comparatively fragrant electric railway to the top of the Gorner Grat.

From the lower slopes there are glimpses down the long valley towards Visp, and on the right the numerous peaks of the Mischabelhörner, with the Dom and Täschhorn dominating the group, are seen to advantage. A few minutes later the interest in distant views is eclipsed by nearer scenes, whilst crossing the fragile bridge which spans the deep gorge of the Findelenbach. As the tiny train crawls slowly across, a curious sensation of being suspended in mid-air is experienced, until attention is diverted by the sight of the magnificent waterfall leaping over the dizzy rocks.

A little higher, and on the opposite side of the railway, there is a magnificent view through a break in the pine forest. The Matterhorn is seen in its true proportions standing boldly above the châlet-dotted pastures beyond Zermatt. Roughly speaking, it divides the main valley into two great glacier-filled hollows; that on the left contains the Gorner Glacier, and culminates in the snowy peaks of the Monte Rosa group, whilst on the right the more open Zmutt Valley, with the glacier of that name in its recesses, leads up to the Dent d'Hérens and the more conspicuous peak of the Dent Blanche with its many snow-capped satellites. A glorious array of peaks is gradually unfolded still farther to the right. The sharp summit of the Ober Gabelhorn peeps over the be-pinnacled crest of its humbler dependency the Unter Gabelhorn, which is one of the favourite short climbs from Zermatt. From the railway, just below the Riffelalp Station, it seems more formidable than its nobler neighbour; higher up, the deception is revealed.

Still farther to the right this great branch of the Central Pennine Chain continues in a northerly direction. The Wellenkuppe with its curious "white cap" of snow occupies a prominent position, because it stands somewhat in front of the main ridge, which bends round behind and sweeps up from



Abraham

THE WEISSHORN FROM ABOVE THE TÄSCH ALP

THE ORDINARY ROUTE OF ASCENT LIES UP THE LONG RIDGE SEEN IN PROFILE TO THE RIGHT
OF THE SUMMIT

the Triftjoch by way of a vastly shattered arête to the sharp rocky top of the Zinal Rothhorn.

The smaller peak of the Mettelhorn partially dwarfs this, its remoter but superior neighbour. The grand, Mettelhorn cliffs appear to drop sheer over into the Zermatt Valley, and though enthusiastic rock-climbers can find a more or less direct way up it from the village, the usual route follows up the deep gorge of the Trift, which cuts conspicuously through the lower bastions just to the left of the crags. This gorge also gives access to the more important courses up the Ober Gabelhorn and the Rothhorn, and a comfortable sleeping-place, the Trift Hut, stands in the great hollow below the snouts of the Gabelhorn and Trift Glaciers.

Farther away to the right beyond the Schallihorn, the glorious peak of the Weisshorn towers serenely above the lower buttresses. The ridges stretching symmetrically up to its tip are plainly visible from near the Riffelalp, and Leslie Stephen's description appears most appropriate: "Of all mountain tops that I know, that of the Weisshorn is, I think, the most beautiful, with perhaps the one exception of the Wetterhorn. It is formed by three of those firm and delicate edges, which can only be modelled in the mountain snow, uniting to meet in a mathematical point."

Just before the railway debouches on to the level stretch by the Riffel Alp Station, there is a fine panorama of peaks visible from the other side of the carriage. The Findelen Glacier sweeps down with a picturesque curve, and at its head stand the peaks of the Rimpfischhorn and the Strahlhorn with the Adler Pass leading over to Saas-Fée dividing them. The Alphubel and the Allalinhorn, parts of the Mischabelhörner, are situated on the farther side of the former peak, and are not easily distinguished from this part of the railway.

Beyond the hotels on the Riffelalp and the Riffelberg the view broadens out, and distance inclines the peaks to lose much of their impressive individuality; soon the whistle of the little, throbbing locomotive re-echoes through the crags of the Riffelhorn, which may probably be reflected peacefully in the tiny See at its foot, and in a few minutes the terminus on the Gorner Grat is reached.

There is no great advantage in following the hungry and

thirsty crowd who probably race for the summit, with its hotels, importunate shopkeepers, general dealers, and touters in all kinds of things, from post-cards to carved bears, bigger than the pseudo-guide who stalks proudly through the crowd, and anon awakes the grandest of solitudes with the wailful music of the Alpine horn. The interior of the large hotel is usually the centre of popular attraction as each train-load arrives. Pure ozone is a keen appetiser; so the majority escape from it by immuring themselves in the salon and struggling to get someone else's turn at lunch.

But let us rather take our fill of the sweeter mountain air and bask in the warm sunshine, which is comfortably tempered by the proximity of the most prodigious, natural refrigerator. We may avoid the summit, and wander off amongst the rocks on the right until they drop suddenly over to the Gorner Glacier a thousand feet below; no foreground mars our view into the vast glories of the snow and ice world spread all around in distant but glittering magnificence.

Away on the left the vast glaciers seem almost endless; several passes lead in that direction over into Italy. The snowy hump of the Cima di Jazzi rises out of the expanse of snow; on its left lies the New Weissthor Pass, and on its right the Old Weissthor. Both involve much laborious snow-walking, and, though neither is difficult, there are numerous concealed crevasses on their upper stretches, which require that the party should be properly roped and possess some experienced members.

The former route is recommended for those who wish to visit Macugnaga, and see the most impressive face of Monte Rosa. On the Italian side of the pass some mild rock-climbing is encountered whilst descending into the Val Anzasca. A good hour and a half below the summit a few steep but easy rocks lead down to the Cabane Eugenio Sella, and after nearly three hours more of easy walking the hotels at Macugnaga will be at hand.

Though the Italian side of Monte Rosa is usually considered one of the finest sights in the Alps, very few travellers see it, hence this special mention of the convenient New Weissthor Pass. In the view from the Gorner Grat the same peak occupies the most prominent position, and those

who only see this popular side of it are usually delighted with the prospect.

In the morning light, when the long blue shadows slant across its front, breaking up its snowy mantle into wonderful relief, and picking out each icy buttress with its golden glow, the peak appears to assert its just claim to rank as the second highest mountain in the Alps. At other times it is apt to appear somewhat flat and tame; the nearer peaks seem to dwarf its grandeur, and the average person frequently awards the Breithorn or the Lyskamm the point of honour.

Considerable argument often arises as to which of the two conspicuous peaks of the Monte Rosa is the higher summit. The more rocky peak to the right holds premier position; its orthodox name is the Dufourspitze, and the height is given on the maps as 15,217 feet. The Nord End, 15,132 feet, is the name of the other peak, and the graceful snow-ridge which connects the two is appropriately called the Silbersattel.

The upper ridges of Monte Rosa are much more complicated than would appear from our present standpoint, and in cloudy weather it is often difficult to find the actual summit. The other principal and slightly lower peaks are the Zumstein-spitze (15,004 feet), Signalkuppe (14,964 feet), Parrotspitze (14,643 feet), Balmenhorn (14,187 feet), and Ludwigshöhe (14,252 feet). In bad weather it is an easy matter to mistake a lower point for the Dufourspitze. Those who have made guideless ascents will understand that it is possible to imagine and state in good faith that they have been on the summit, and yet in reality to have failed.

A few years ago there used to be a superannuated guide at Zermatt who made use of this peculiarity of certain local peaks. Most of his time was spent in bibulous excesses in the vicinity of the various hotels, where his name and past history always found him ready listeners. When times were bad he would smarten up and persuade some "innocents abroad" to engage him for the Breithorn, Monte Rosa, or preferably some nearer peak of the deceptive variety. He would craftily contrive to wait until a really misty or cloudy day arrived, and then the expedition so long looked forward to would start. It was my ill-luck to come upon one of his parties proudly seated in the mist on a small peak on the ridge of the Unter

Gabelhorn overlooking the Trift Hut. Their guide had informed them that they now stood on the summit, and my blundering remarks, which were made innocently in explanation, led to a severance of friendship with the old guide for ever. He has now joined the majority, so the telling of the story will not affect his occupation, but I have heard that his example has been followed of recent years by less worthy and younger men; the practice is one to be strongly deprecated.

Resuming our survey from the Gorner Grat, the next peak on the right is the Lyskamm, which is notorious on account of numerous accidents and dangerous cornices. The depression separating it from Monte Rosa is the Lysjoch, and from near this well-known pass over into Italy the crest of the Lyskamm is easiest of attainment. A well-defined rock-ridge can be seen leading from the lower part of the Grenz Glacier, some distance below the Lysjoch, almost to the top of the peak. This avoids the most dangerous cornices, but judging from the famous descriptions of the first ascent written by the late Norman Neruda, it is almost another case of Scylla and Charybdis.

The Lyskamm (14,889 feet) was originally known as the Silberbast. The latter part of this name was evidently adapted from "bast," which is the local *patois* for the saddle worn by the pack mules. Seen from the Gorner Grat on a bright day, after a new fall of snow, it is evident that the name is singularly appropriate; it has the appearance of a huge pack-saddle glistening in a silvery coat of snow. The Twins, Castor and Pollux, appear rather diminutive in such impressive company, and though they rise respectively to heights of 13,878 and 13,432 feet, they seldom attract many climbers. A few years ago a well-known English climber traversed them both after crossing over the Lyskamm from the Lysjoch. The well-marked *col* between Pollux and the massive bulk of the Breithorn on the right denotes the situation of the Schwarzthor Pass over into Italy. It is lacking in character on that side, and perhaps this is the reason for its comparative neglect.

The Breithorn (13,685 feet) is probably the most popular of the Zermatt peaks, and more travellers ascend it than any other of these. It is centrally situated as a view-point, and its ascent possesses no technical difficulties, beyond a few simple



Abraham
THE MONTE ROSA GROUP, WITH THE LISKAMN, BREITHORN, ETC., FROM THE TOP OF THE NATTEHORN

crevasses, though under certain conditions the last slopes leading to the summit may be icy and require the cutting of a few steps. But during the season, and in settled weather, there is usually a pathway deeply marked in the snow all the way; at such times, the beautiful, snowy dome bears far too obtrusive evidence of human visitation; it may become little better than Hampstead Heath on the morning after a Bank Holiday.

The route cannot be seen from the Gorner Grat. The usual course is to stay the night at the hut on the top of the Théodule Pass; next morning a walk of under three hours enables the traveller to gain the summit. It is quite a common event for six or eight tourists and two guides on the same rope to climb the Breithorn. One of the sights of the district is to see these larged roped parties descending and glissading *en masse* down the long harmless slopes. It will be noticed that if any of the party possess ice-axes, the guides usually take charge of them during the performance. As they often land at the bottom of the steeper slopes as a mass of kicking, struggling, spluttering, snow-smothered humanity, the reason for this is obvious enough. Some *ladies* seem specially fond of this form of glissading.

The curious, rocky, snowed-tipped tooth which abuts from the Théodule end of the Breithorn can be ascended *en route* during the descent; it will only lengthen the expedition by about an hour and a half. This peak rejoices in the name of the Klein Matterhorn.

Before we quit our resting-place on the Gorner Grat, the conical summit of the Riffelhorn quite close to us on the right should be noticed. It is purely a rock peak, and from the *col* just below us it is an interesting scramble to the top over slabs of varying steepness. This is the easiest way up. The fine cliff which it throws down to the Gorner Glacier, formerly called the Boden Glacier, nearly 2,000 feet below, provides a splendid course from Zermatt for those who favour more advanced rock-climbing. The shortest route up the Riffelhorn is that on the further side of the peak as seen from the Gorner Grat, but it is difficult enough to have been declared impossible by several expert parties. The obstacle consists of a chimney about 30 feet high; the short overhanging part can be negotiated by the back-and-knee method. On the side

facing the Matterhorn there is a magnificent couloir; of this more, presently.

The climber who arrives at Zermatt fresh and untrained from England may be glad to know of a few suitable minor expeditions to serve as preparation for the higher peaks. One of the best of these is the ascent of Gugel, which is a small peak seen to advantage from Zermatt and rising east of the Riffelalp Hotel. From there it is simply a dull walk up easy slopes, but if the climber will tackle it from the Findelen Gorge side, he will find some interesting rock-ridges whose difficulty can be varied to any extent. It is best to follow the Findelen path until the steepest portion is surmounted, and a place is soon seen where it is possible to cross the stream which descends the gorge. Considering its height (8,882 feet), the view from Gugel is the best in the neighbourhood; it is the most convenient point in the district from which to see the Matterhorn to the greatest advantage.

The end of the Hörnli which overlooks the Schwarz See abounds in fascinating problems. Those who have learnt the principles of rock-climbing on British mountains will find a day spent here an excellent means of stretching their legs as well as their arms.

Mention has already been made of the face of the Mettelhorn, but many will prefer the Unter Gabelhorn, because it affords a more definite climb and is better known. The ordinary route follows the Trift Gorge as far as the first "tea-house," which can be seen prominently from behind the Monte Rosa Hotel. At this welcome resting-place a path, which is rather ill defined in many places, bears sharply away to the left, and, after leading out upon the grass-covered cliff overlooking the Zermatt valley, it slants upward to finally disappear on grassy slopes.

Then the pinnaced end of the Unter Gabelhorn soon comes into view. The usual way up is to traverse across rock-strewn slopes to the left of this, the lower peak, until an easy couloir gives access to the small *col* below the final arête leading to the summit. This consists of a short but entertaining scramble up good rocks. Guideless parties will find that a more interesting climb can be enjoyed by making straight for the lower peak as soon as it is visible. The ridge which



Arabian

“UP THE ICE-FALL OF THE CORNER GLACIER”
THE BREITHORN IS SEEN ON THE RIGHT



affords fine views down into the Trift Valley, can be followed almost throughout its height as far as the summit cairn.

The well-marked snow couloir which cleaves the mountain on this latter side may serve as a consolation for those parties who have spent a night at the Trift Hut, and suffered disappointment through being unable to tackle the higher peaks on account of bad weather. In some seasons the bergschrund near the foot of this couloir is difficult.

Undoubtedly the finest short expedition from Zermatt is the ascent of the Riffelhorn by the great cleft in its westerly front. This faces the popular Zermatt peak, and is known as the Matterhorn Couloir.

From actual experience I can safely say that it is not suitable for a first day's expedition. The following short description of a guideless ascent in June of 1898 will perhaps accentuate this. In those days it possessed a reputation for extreme difficulty, and scarcely any of the Zermatt guides had climbed it; those who had, told us that it was impossible so early in the year. The huge chock-stones which rise one above the other and form several pitches in true Cumbrian fashion had attracted our attention the previous autumn, and we felt certain of success if the ice-fall on the Gorner Glacier did not prove impossible at the outset. We were a party of three, and, though some difficulty was found in making a way through the complicated series of ice pinnacles and crevasses which abound there, we eventually managed to clamber up the Gorner Glacier, traverse off to the left, and gain a steep slope of frozen snow, which led up into the recesses of the magnificent Couloir.

We spent over four hours struggling up its steep slabs and narrow chimneys. The first great pitch was passed on the right, but it is scarcely advisable to go into the finer details of the course. One point in particular impressed me strongly. We had climbed up the central chimney on the right until a great overhanging boulder stopped upward progress, and we were forced to the left out on to a sharp rock-ridge, where hand- and foot-holds were almost at vanishing point. I climbed nearly 70 feet up this steep and dangerous portion without finding a suitable ledge on which to pause, and hold the rope whilst the second climber

ascended. The crags stretched far above at the same angle of steepness, and I had reluctantly decided to give up the attempt and descend, when a few feet away to the left I saw a curious pinnacle jutting out from the crest of the ridge. A difficult passage enabled me to reach this and coil my rope firmly round it. The situation was sensational but absolutely safe; my companions were then able to advance one at a time to my *firma loca*, and when the second climber was safely tied around the friendly pinnacle, the ascent straight ahead was feasible until a broad ledge was reached. There the whole party foregathered, and we "drank the health" of the little pinnacle which had so opportunely saved us from an ignominious retreat.

The view was magnificent; from an apparently vertical drop of over 1,000 feet to the Gorner Glacier, the eye was led across the snowfields of the Théodule to the stupendous, snowy crags of the Matterhorn, down which great avalanches were thundering continuously.

Our enjoyment of the rest of the climb to the top was somewhat marred by a snowstorm which arose suddenly. After hurried congratulations, we were glad to leave the summit and hasten down the snow-covered rocks on the short, easy side of the peak to the Riffel Hotel, which we reached as daylight faded away. Some friends below in Zermatt had become nervous at our non-appearance, and we had the pleasure of answering their telephonic inquiries as to our whereabouts. We stumbled down through the dark pinewoods, and want of training was evidenced by our inability to resist the temptation to sample the *vin du pays* in almost every ch  let we passed. The first days of an Alpine thirst are aggravating and expensive.

Most raw mountaineers would find it advantageous to take a day's comparative rest in the vicinity of the hotel after such an introductory scramble, and we were no exception to the rule. In those days the Shohorn was the favourite haunt on these occasions. It used to be a revelation to see the "small fry" of Zermatt mounting gaily to the top of this boulder by routes that even boulder-specialists found bordering on impossibility.

It seems that quite recently this historic landmark and

convenient resort for an off-day has been blasted into fragments for building purposes. However, there are still a few boulders in the vicinity where "mad Englishmen can astonish the natives with their mad antics"—which proceeding most of them find more entertaining than the music-salon or dancing-room.

CHAPTER XVIII

THE RIMPFISCHHORN, MONTE ROSA, DOM, WEISSHORN, AND NEIGHBOURING PEAKS

“Silent and calm, have you e’er scaled the height
Of some lone mountain peak, in heaven’s sight?”—VICTOR HUGO

ALL mountaineers who come to Zermatt intend at some time or other to climb the Matterhorn. It is a lesson in national characteristics to observe the way that men and even women of various countries approach the undertaking. The climber of one nationality proceeds by stealth, nobody, except the parties concerned, is the wiser as to the purpose of his visit to Zermatt; the opposite type guesses “it’s going to climb the Matterhorn,” and everybody in the neighbourhood is aware of the fact. All varieties of human nature between these two extremes are to be encountered at Zermatt during the climbing season.

It would be unwise to say which of the two classes is to be commended. The reticence of the stealthy or even the quietly modest man may be simply due to the fact that he is afraid of “What people would say” should he fail to reach the summit; his apparent virtues are doubtful. The impetuous advertiser is, at least, honest in his intentions; and seasoned mountaineers soon grow reconciled to his characteristics, and accustomed to hearing from the hero’s lady friends that “the best climber in the world is staying in the hotel.”

During some summer seasons and under certain weather conditions the Matterhorn may be inaccessible for weeks together; which means great disappointment to many mountaineers, as well as considerable monetary loss for the guides. Bad luck seems to dog the footsteps of some mortals, and, though many climbers visit Zermatt over and over again,



Abraham

"A BREAK IN THE CLOUDS"

THE DOM AND TASCHORN FROM THE ROTHORN

some of them never seem to arrive when the only peak of their ambition is fit for attack.

In the early summer of 1898, I met a wealthy German enthusiast who had visited Zermatt on seven different occasions, and yet had never stood on the top of the Matterhorn. On this occasion the weather was hopeless, and he used to hang round the hotel doing various kinds of nothing, with two specially engaged guides capably assisting him in the process.

Now the rest of us were in the same plight as regards the Matterhorn, but there are other splendid mountains around Zermatt. In this chapter I would show how we made good use of the time of waiting, and offer suggestions for others who may be situated in like manner. Portions of an ensuing chapter will demonstrate that exercise is better than idle inaction.

After a spell of bad weather the Rimpfischhorn is almost the first of the higher peaks to get into condition. During a fortnight's stay in Zermatt a party of four of us had managed, despite the weather, to visit the summits of several other peaks; but a recurrence of storm had sent my friends home to England. They had grown tired of sitting by the guides on the Zermatt wall, kicking their heels in idleness. Even the excitement of discussing and arranging special tariffs for the Teufelsgrat, or the Zmutt Ridge of the Matterhorn, had begun to pall. All the difficulties of these exceptional courses had been met and conquered in imagination, and a list of the commissariat had been provided; but the crucial question keenly asked by the amateurs, "What time shall we start in the morning?" was stolidly answered by the guides, with an upward wave of the hands towards the snow-covered rocks, — "*ganz unmöglich!*"¹

Thus when one of the guides suggested the Rimpfischhorn, I accepted his offer gladly, and also engaged his brother as porter to carry my heavy camera. That same afternoon we took advantage of the fine weather and set off for the Fluh Alp, my companions slouching along up the valley in that typically ungainly manner of walking adopted by Swiss guides. These professionals do not seem to be moving at any pace, and their awkward gait is generally criticised by the spruce city man,

¹ Quite impossible.

who is apt to think that style is everything. Let him keep pace with the Swiss guide for half a day, then he will realise the deception. The case is somewhat like Kipling's account of the mystery of an elephant's speed. He has said somewhere that the elephant cannot run, but "if he wanted to catch an express train he could catch it." So the guide goes along "all of a heap" hour after hour, but he generally arrives as fresh as he starts; and, should there be a train to catch, or, what is of more importance, some misfortune or terrible storm on the heights to weather safely, he has always a reserve of energy for the emergency. His example is worth consideration.

As we mounted leisurely up through the pine woods below Findelen that beautiful, July afternoon, there was plenty of time to enjoy the enchanting peeps of the snowy crest of the Matterhorn, as now and again it seemed to shake itself clear of the masses of vapour that rolled across from the north-west. As the sun moved westwards, the clouds gradually vanished, and when we reached the Fluh Hut, or, as it was called above the entrance, The Fluh Hotel, the weather seemed full of promise for the morrow.

Shortly after our arrival the peace of the hut was disturbed by two young English undergraduates and their guides, who had come up from the Riffelalp Hotel to make the ascent of the Rimpfischhorn. Their costume proclaimed their novitiate. In fact, after they had partly realised that I was more respectable than my tattered climbing garments seemed to imply, they volunteered the obvious information that it was their first attempt to climb a mountain. They finished the explanation with the question, "What's it like?" Of course an answer could scarcely be given off-hand, but after the evening meal I took them outside the hut, and, by means of some of the big boulders scattered around, helped them to realise somewhat of the pleasures and penalties of rock-climbing.

Whether it was through the bruises they received during the initiation, or the excitement and novelty of the whole undertaking, it matters not, but neither the novices nor myself slept much that night. They chattered incessantly, and through the thin partition of the tiny bedroom wall I was an unwilling listener to accounts of their love-affairs. I was also

enlightened as to my own personal peculiarities and appearance, otherwise I might have proclaimed my proximity and presumed to ask for silence during the hours allotted for sleep.

The guides had been instructed to wake me at 1 a.m., but when I consulted my watch at 2 a.m. they had not put in an appearance; so I sprang out of bed and, as my boots were in their charge, crossed over the snow-covered ground in bare feet to the guides' quarters, which were in a separate shanty. Certainly they were awake and more or less dressed, but the vast display of empty bottles and the alcoholic atmosphere proclaimed the fact that their night had been spent in merriment and debauch. This was not reassuring, but it seemed best to treat the matter lightly, and make resolves to put little trust in the efficiency of my professional companions.

It was a beautiful, frosty, moonlight night, and though I was clad in the scantiest of night-wear whilst prowling about out of doors in search of my boots, the cold seemed almost negligible, possibly on account of the dryness and purity of the air at this altitude.

After the details of equipment and commissariat had been arranged and an unsatisfactory breakfast disposed of, we started off, receiving meanwhile the good wishes and a hearty send-off from the entire staff of the hotel, which consisted of one sleepy, Swiss maid. The others started a short time after us, but, proceeding by spurts and starts in raw novitiate style, they soon caught us up. However, we re-passed them again whilst they were resting on the last rocks below the upper snow plateau. Ere long they seemed to get an idea that we were racing, so I told my companions to move still more slowly and allow them to go ahead.

Despite the slow pace our porter now and again began to show signs of acute distress, and we soon saw the result of the night's debauch. He had a severe attack of mountain sickness, and a thousand feet higher I had to relieve him of his heavy load or leave him behind in the snow—an impossible alternative. To aggravate matters, when, after much groaning from my companions, we reached the beginning of the final easy rocks which lead to the summit, my guide collapsed in a deep snow-drift, and joined his brother in spoiling the appearance of the near foreground. The sickness made them both look

hopelessly ill, and after a discussion between themselves in *patois*, the guide turned his "greenery-yallery," woe-begone face in my direction and said that we could not reach the summit that day. It was now my turn to say what I thought of their behaviour and capabilities; this I did in no uncertain manner.

At first they treated with scorn my suggestion to lead them up the icy rocks to the summit; such a disgrace as to be led up a peak by an amateur had never before happened to a Zermatt guide, or at least so they said. However, no peak—no pay, proved an overpowering argument. They took their places on the rope resignedly, and in due course we were clambering carefully up the slippery but easy rocks. Higher up a stiff, northerly breeze was whirling the soft snow all round, and the route followed by our predecessors was invisible throughout.

On the lower peak a curious sight greeted us. One of my friends of the previous evening was in a state of collapse due to the cold, and he was also suffering from frost-bite in one hand and both feet; his companion appeared in better plight, but far from happy. I spoke severely to their young guides for allowing them to make the ascent in such light clothing, and also for encouraging the racing which had caused exhaustion and inability to resist the comparatively slight chilliness of the atmosphere. Prolonged rubbing of the affected parts with snow partially restored circulation. The sun had meanwhile begun to enfold us in its warming embrace, and they decided to retreat downwards to the Fluh Hut.

Then, bidding them adieu, we continued over the slightly corniced ridge to the summit, and my companions' spirits, the non-alcoholic ones, rose with the sun. The view was certainly glorious; not a cloud obscured the deep purplish blue of the Alpine sky, against which the snowy monarchs rising all round stood out sharp and clear. Monte Rosa, from its nearer position, was the centre of attraction, its vast icy cliffs seemed almost impregnable from the side facing us, and there was some difficulty in reconciling this aspect of the peak with the milder one seen from the Gorner Grat. In the opposite direction the Dom and Täschhorn were silhouetted against the far-distant peaks of the Oberland, whilst the vast panorama from the

Weisshorn to the Breithorn was bathed in the full, golden rays of the early, morning sun.

After taking several photographs and spending some hours in the vicinity of the summit, we resumed our orthodox places on the rope and hurried down to the Fluh Alp. There we were distressed to hear that one of the young amateurs was so severely frost-bitten that it had been found necessary to carry him down to the Riffel Alp Hotel.

Late in the afternoon we strolled down to Zermatt, and just outside the village my companions solemnly begged me not to make mention, at least to anyone in the village, of their disgraceful performance; such remarks would spoil their reputation for the season and thus deprive them of a livelihood. Whilst we were discussing the matter there was a sudden sound of many children's voices, followed by the appearance of their owners, six or seven in number, of ages ranging from about four to eleven years; they charged boisterously down upon us. It was the children's welcome to their father, my guide; they clambered all over him, filled with joy at his safe return. One small youngster proudly annexed the ice-axe and led the procession. All my feeling of animosity vanished, and the promise of secrecy was given. Thus the father went home looking as happy as any of his children, who, with their brown, bright, chubby faces aglow with health and pleasure, formed a pleasing sight. However, next day, when this picture of domestic bliss had lost some of its glamour, I determined that on no account would I ever again engage a second-rate guide.

Those who tackle the Rimpfischhorn later in the year, when it is in good condition, are strongly advised to make the ascent direct to the top from the side facing the Adler Pass. This makes one of the pleasantest rock climbs, of the shorter variety, in the neighbourhood of Zermatt.

For my next expedition in 1898, which was to the top of Monte Rosa, careful selection was made of a suitable guide, and one was chosen who had accompanied the late A. F. Mummery on some of his famous climbs.

On a glorious morning we left the valley, and, after following the Gorner Grat path nearly to the summit hotel, we pursued our way down the sloping track by Gadmen to the

Gorner Glacier. There we encountered a party of Frenchmen, who had made plans for traversing our peak from the Lysjoch side; so, as it was our intention to descend by that route, we fostered the *entente cordiale* and journeyed together to the Cabane Bétemps. In the season this comfortable little hut is usually overcrowded, because it is also used by those visiting the Lyskamm and the adjacent peaks and passes; but on this occasion we had it entirely to ourselves, and enjoyed a pleasant night's rest.

Soon after midnight we set out together by lantern light, for the moon was hidden by the great mass of Monte Rosa. At the last rocks of the Untere Plattje we bade our friends *au revoir*, and made a promise that our bottle of champagne should await them on the summit.

Two hours later the moon began to illumine the vast snowfields with a sickly gleam; our peace of mind was disturbed by the appearance of some banks of clouds, which mounted steadily up from the west. Before dawn the sky became overcast, and it was apparent that only the best of luck would enable us to reach the summit. Just as we gained the final rock ridge a dense cloud settled over the peak, and a sudden puff of wind swept up from the direction of the Lysjoch.

The rocks were encased in ice and snow, and we quickly realised that our friends on the westerly ridge would never reach the top that day. Now was the time to appreciate the services of a first-class guide. We worked steadily up to the summit, confident in his judgment that there was just time to complete the ascent, get back off the dangerous rocks, and on to the snow again before the real storm broke. One icy slab will always linger in my memory. The guide had cut the smallest of notches for hands and feet, and, whilst essaying the ascent in haste, my balance became disturbed; my frantic efforts to regain it caused the rest of the party great amusement. Doubtless my progress was about as certain and picturesque to look upon as that of a weak-legged puppy on a frozen pond, but the rope gave the necessary feeling of safety, and I was at least able to make the usual explanation that its "undue persuasion" had pulled me out of the small steps.

We left a half bottle of champagne on the summit; but one sniff of the gale, which swept up from the direction of the

Lysjoch, caused serious misgivings as to its sacrifice. We felt certain that our friends would give up the attempt. This proved a perfectly correct surmise, for we learnt later that at that very moment they were drinking hot coffee in the Cabane Bétemps before passing downwards to Zermatt.

We had to retrace our upward route, but the descent proved to be uneventful, for the promised storm never seriously broke; only slight snow showers fell during the crossing of the glacier to the Gorner Grat, and the sky was clearing rapidly from the northwards as we walked down through the pine woods towards Zermatt.

Experiences of later years prompt the expression of an opinion that the pleasantest and most interesting way up Monte Rosa is by the splendid rock-ridge which stretches from a bay in the upper part of the Grenz Glacier, some distance below the Lysjoch, practically to the summit cairn. There is no denying the fact that the ordinary route is scarcely more fascinating than the monotonous trudge up Mont Blanc. Monte Rosa certainly has the advantage of possessing a few rocks near the summit; but under normal conditions these are not of much technical interest, and the ice and snow scenery of its lower slopes are on an inferior scale to that of the "Monarch of Mountains."

The Italian side of Monte Rosa is not much favoured by mountaineers. One of the earliest ascents was made from near Macugnaga by the late Richard Pendlebury, and he told me that it was one of the few climbs that he never wished to repeat. The party was constantly in danger from avalanches, and others, who more or less followed their route, unfortunately met with disaster.

The party who first ascended by the south-east ridge tersely summed up their experience in the following advice: "Our route is recommended to future climbers who do not mind rotten rocks, plenty of falling stones, and but little good hand-hold or footing during three and a half hours." This ridge, which connects the peak with the Zumsteinspitze, is not nowadays considered so bad.

In turning to the Mischabelhörner it should be mentioned that, with the exception of the Täschhorn and Dom, all these peaks, including the Süd-Lenzspitze, Nadelhorn. Ulrichshorn,

Balfrinhorn, as well as the Alphubel and Allalinhorn, are most conveniently attacked from Saas-Fée or its vicinity.

This delightful little oasis amongst the mountains lies in the next valley north-east of Zermatt. It is almost surrounded by the above-mentioned magnificent array of mountains and the Egginer Grat; whilst in the other direction, on the farther side of the main valley wherein reposes Saas-im-Grund, the peaks of the Fletschhorn, Portjengrat, Laquinhorn, and Weissmies tower grandly in the track of the rising sun. The ascent of this latter group is best made from the Weissmies Hotel (8,200 feet).

Recent performances would suggest that the summits of the former range, which, with the addition of the Strahlhorn and Rimpfischhorn, are commonly called the Saas-Grat, might be ascended consecutively without making a descent to the valleys at all. From Zermatt it is an easy snow walk to the top of the Strahlhorn; and, after a descent to the Adler Pass, there is the interesting rock scramble to the Rimpfischhorn. Thence, after reaching the Allalin Pass, the traverse of the Allalinhorn down to the Alphubeljoch would bring within reach the easy snow slopes leading to the top of the Alphubel. After the descent to the Mischabeljoch, more serious difficulties would be met with during the climb up the Täschhorn, whence it would be possible to traverse successively over the Dom, Sud-Leuzspitze, Nadelhorn, Ulrichshorn, and Balfrinhorn.

It may be safely said that this mountain walk cannot be performed under twenty-four hours; even the record-holder for the Cumbrian Mountains would concur in this opinion.

But most ordinary travellers would be content with one of the higher of these peaks in a day; the Dom and Täschhorn rank as the popular favourites. Randa is the best base of operations for both these courses, and the use of the railway from Zermatt enables the tiring walk down the valley to be avoided. For the Täschhorn (14,757 feet) a good track leads diagonally across the Tschuggen Alp in the direction of the Kien Glacier. It is usual to spend the night in a hut near the foot of the glacier at a height of 9,200 feet. The route thence to the summit is capable

of considerable variation, but it keeps practically to the Kien Glacier throughout. Huge crevasses often bar the way, and late in the season considerable *détours* are sometimes necessary. On the final slopes ice may be encountered, and frequently prolonged step-cutting is necessary. From the top of the Täschhorn it is possible to traverse the crest of the main ridge to the Dom; it is seldom done in this direction, but in favourable seasons the reverse way is not an extremely hazardous undertaking, if the top of the Dom can be gained in the early morning.

The west-south-west ridge of the Täschhorn forms one of the *bonne bouches* of Alpine climbing. It is now known as the Teufelsgrat, and its first conquest in 1887 by the late A. F. Mummery and his wife, with the guides Alexander Burgener and Andenmatten, is one of the most notable events in Alpine history.

Of all the mountain properties of His Satanic Majesty this ridge on the Täschhorn must be one of his proudest possessions. Unfortunately, in this case, I do not speak from personal experience, but judging from the misfortunes and hair-breadth escapes of the first intruders into his domains, the reputed owner of the ridge has decorated it with sufficient difficulties and dangers to satisfy the most ardent enthusiast.

The Dom does not possess any such notable features, but its ascent from Randa under the most unfavourable conditions may yield sufficient excitement for ordinary mountaineers. The brief story of an attempt to climb it without guides in the June of 1898 will probably justify this statement.

The party consisted of three amateurs and two Zermatt porters, who, after much grumbling, agreed to accompany us. Porters who are willing to accompany a guideless party are usually very difficult to find. As we wandered up the flower-clad slopes above Randa, the fact was heavily impressed upon us that another porter would have made the journey more enjoyable. All were fully laden with dry clothes, eatables, and luxuries; for we were determined to make life worth living at the Dom hut, which is situated at a height of over 9,400 feet, or nearly 5,000 feet above Randa.

After toiling upward for about three hours we arrived above the last of the pines, and each of us added to his load by gathering some firewood to carry up to the hut. After this addition our progress was disgracefully slow, for the epicure of the party was burdened with a special brand of tea and a new patent apparatus for making it "at a moment's notice." Whenever he grew tired he would call a halt, and the "moment's notice" was never less than half an hour, during which time we had to take off our coats and shiver in the biting wind, whilst the coats sheltered the spirit-lamp and our friend. The weather grew gradually worse, and ere we reached the hut on the true right bank of the Festi Glacier it was snowing hard, with little promise for the morrow's ascent.

Far into the evening we discussed the wisdom of tackling the peak under such conditions; but next morning the discussion was not renewed. In fact, it was snowing harder than ever, and this continued throughout the day, until we feared the hut would become snowed up. Towards evening we realised that our position was becoming serious, for our food and firewood were almost exhausted. The cold was intense, and our two porters grew nervous, their conversation turning to frost-bite and other such discomforting topics.

Just at twilight a curious thing happened. We were all sitting round the cold stove wrapped in blankets when a terribly human yell, as of someone in pain, sounded outside, quite close to the hut, and just for the moment it caused the bravest of us to shudder. Two of us wrenched open the snowed-up door, fully expecting to rescue someone in distress; however, nothing was visible but dense snow-clouds. No human traces could be seen near the hut. The two porters were in a state of collapse, and did little but mutter "*Geister ! geister !*" and other expressions in *patois*, signifying that the whole party was doomed. Nothing would suffice but that they must descend to the valley at once, and leave us waiting to finish the climb, which they were sure would be our last. We agreed to see them safely down the rocks below the hut, which were in a dangerous state, on condition that they carried a note at once to a friend in Zermatt, asking for food, and another porter possessed of more courage. We were too



Abraham

THE ZERMATT PEAKS FROM THE RIDGE OF THE DOM

THE SNOW-HIDDEN CREVASSES OF THE FESTI GLACIER ARE DISCERNIBLE BELOW, AND THE MATTERHORN IS UNMISTAKABLE IN THE DISTANCE,
WITH THE ROTHORN ON THE EXTREME RIGHT

hungry and cold to sleep much that night, but we never again heard that unnerving yell, and to this day it remains unexplained.

The following afternoon the weather cleared beautifully, and across the valley we had magnificent peeps of the snowy Weisshorn framed in clouds of fantastic design. In the evening a prodigious load of provisions and wood appeared, beneath which staggered a new porter, who proved invaluable.

Next morning at 3 a.m. we started upward under promising conditions, for the stars were twinkling in that clear manner which in the Alps augurs good weather. At first the snow was frozen hard, and we mounted rapidly up the Festi Glacier. Later on, the sun began to tinge the snowy summit of the Dom with a bright rosy hue, and in its warm rays the going grew softer and softer, until at about 12,000 feet we found ourselves laboriously ploughing through soft snow up to our waists.

We eventually rested for lunch in a most uncomfortable position on the final ridge, and even the keenest of us confessed that further progress would be unwise; as it was, we had the greatest difficulty in descending the rapidly disintegrating new snow, which slid away in huge masses under our feet. It was a great disappointment, but really a providential one, for we could see that avalanches kept sweeping down and across our proposed route, and no amount of human strength or skill avails under such circumstances.

Our retreat from the lower part of the Dom was not marked by any unusual adventure, but on reaching the valley in a half-famished condition we made for the hotel at Randa. There we had a great and foolish feed, and next day we were all suffering from peculiar symptoms, which a kind friend suggested were those of mountain sickness. Would that all mountain sickness were so easily explained!

That mountaineer must be possessed of a poor enthusiasm who comes back from the Dom, after a fine weather ascent, without a rooted determination to climb the graceful peak of the Weisshorn, whose magnificent aspect has cheered his somewhat monotonous trudge up the everlasting snows.

From the purely popular point of view it is an unappreciated mountain. Thousands of travellers who annually

pass by its base are almost oblivious of its presence or unaware of its grandeur. Unlike the Matterhorn, it is not seen to advantage from any part of the valley, and only those who have gazed on its beautiful outlines from the higher levels can understand why mountain *littérateurs* have so lauded its praises.

Visitors to Zermatt could spend a pleasant day in a visit to the gentian-carpeted pine-woods above Randa. After an hour's walk up the track leading to the Dom Hut, there are suitable picnicking places on either hand, and the sight of the Weisshorn from base to summit, with its symmetrical ridges and vast, riven glaciers, is surprisingly grand. There is scarcely anything finer in the whole of the Alps.

From above Randa the eastern ridge of the Weisshorn, which provides the easiest and consequently the most favoured way to the summit, is not seen to advantage. It runs almost straight downward in the direction of the point of view, and the foreshortening effect robs the ridge of its individual features. From the neighbourhood of the Riffelalp the climbing details can be seen more favourably, especially if a good telescope be utilised.

As there is a difference of rather more than 10,000 feet between Randa and the top of the Weisshorn, it is now usual to spend a night out at the Cabane, which has recently been erected by the Swiss Alpine Club at a height of about 9,400 feet.

A few years ago it was customary for the amateurs of a party to sleep on the rocks by the Schalliberg Glacier, partly because the old hut had fallen into ruins, and partly on account of the voracious activity of those tiny tenants who nightly prowled amidst the straw "seeking whom they might devour."

The new Cabane will be welcomed by those who choose to disagree with Goldsmith's *Traveller* when he expressed the opinion that

" Though the rocky summit frown,
These rocks, by custom, turn to beds of down."

The new sleeping-place is some distance south-east of the summit, and thus the early morning hours of the second day

are passed in trudging across the lower slopes of the southern face before the last ridge is within reach. There the route to the summit is unmistakable.

The snow arête is narrow in many places, and for about an hour and a half the way lies up its crest. At times the "path" narrows to a width of only a few inches, and it is necessary to emulate the feats of Blondin; there are impressive views downwards, meanwhile. Precipices yawn on either hand with a swallowing capacity about 4,000 feet in depth. Progress is scarcely monotonous under such circumstances, but by way of a change Nature has decorated the snow arête with sundry rock turrets, over which it is necessary to climb.

At one point the schistose outcrop continues as a rocky wall with a sharp "ridge-pole" of frozen snow forming a veritable knife-edge along its crest. Small cornices usually bend gracefully over the abyss, and it is obviously unwise to attempt the passage direct; only the light footstep of a Camilla could hope to cross it in safety. Nevertheless, in favourable seasons, and under certain conditions of the snow, the crossing is justifiable. But the best method, especially in windy weather, is to descend about twelve to twenty feet below the top of the ridge and make a way along the face of the great wall whose base is nearly 4,000 feet below. Large footsteps can be cut in the hard snow and ice, and, though caution is obviously necessary, the traverse is not technically difficult.

Soon it is possible to gain the crest of the ridge, which now broadens out considerably. Before the top is gained it assumes the proportion of a snow slope, and below the steeper portion some incipient crevasses may unexpectedly claim the unwary climber.

The top of the Weisshorn is certainly more beautiful to look at than comfortable to rest upon. Its sharp, icy top will only accommodate one person at a time, and a cool breeze generally sweeps up from one or other of the appalling glacier basins below. Probably on account of its insular position the peak has earned an unenviable reputation for thunderstorms. These frequently attack parties descending the eastern ridge after midday.

A friend of mine, Mr. A. E. Field, had an exciting experience here in 1898, and he has given me the following vivid description of the adventures of his party on the way down from the first ascent of that year:

"We stepped on to the ridge and had not gone down very far before the mist rolled away and we were saluted with a short, sharp shower of hail. This stopped, and I became conscious of peculiar sensations at the tips of my fingers, and found the hairs on my gloves beginning to stand up on end. We were simply all charged with electricity, and the silent discharge was sizzling off from our fingers. Sparks began to play about our axes; soon there came a sudden flash of lightning and a clap of thunder, and we all experienced an electric shock at the same moment. The guides urged us to tie our handkerchiefs round the heads of our axes, which we accordingly did, but in a very few minutes the electric performance was repeated and we all received a second shock. The guides began to chatter in *patois*, of which I understood more than I was expected to, and concluded therefrom that they regarded the situation as a serious one. However, it was no use arguing, for here we were in the midst of a thunder-storm on the famous ridge of the Weisshorn, and the only plan was to descend as speedily as possible. We hurried on, and almost flung ourselves down the rock-teeth that stopped our course at times; still the clouds rolled blackly round us, and soon came a third flash with its accompanying shock, and my startled fingers relaxed their grip of the axe, which fortunately, however, caught in a rock at my feet. The guides now implored us to sacrifice the axes, and so, in deference to their requests, five axes were planted firmly in the snow on the ridge, and the descent continued with but a single axe among the party, which was retained for emergencies. We climbed hastily down the last rock-tower on the ridge and soon came to the point where it was necessary to traverse along the snow-wall, and then quickly but cautiously we made our way along it, planting our feet firmly in the steps we had cut on the ascent and clinging on with our fingers buried in the hard snow above our heads. "Kommen sie nur, mein Herr," said the guides; "aber immer ganz vorsichtig, sonst sind wir alle verloren"; and further encouraged us by remark-

ing, "Glücklich sind wir, wenn wir mit Leben allein bleiben," or "We shall be fortunate if we escape with life alone." I answered them that we must all hope for that, and soon our perilous passage was over, and we regained the crest of the ridge, and it was not long before we reached its foot safe and sound. What we regretted most was the loss of our axes, for after we abandoned them there had been no further lightning. We recovered them, however, a few days afterwards, for another party who were on the mountain kindly brought them down to the foot of the ridge, where they handed them over to two porters whom we had sent up for them."

There are several other ways of climbing the Weisshorn from the side of the Zermatt Valley, but none of them are quite satisfactory. Almost in every case their intrinsic difficulties are aggravated by the presence of loose rock and falling stones. Parties have now and again run the blockade, and, defying the best efforts of Nature's mountain artillery, reached one or other of the summit ridges up the west face. Those who know the peak will agree that the performance is not one to which any great merit attaches. Valuable lives have been lost on the Weisshorn in following bad examples.

The north-east face has also been ascended from the Bies Glacier, but the route is rather difficult of access and few mountaineers make use of it.

The conspicuous south-south-west ridge which appears to such striking advantage from the Zinal Rothhorn, was conquered in its entirety so recently as the autumn of 1895. The ridge starts from the Schallijoch, and is nowadays known as the Schalligrat. The way in which this famous ridge has defied the powers of some of the strongest parties quite justifies its title of the "Shan'tigrat."

Another modern triumph has been the ascent of the north ridge throughout its length and over the great Tower, which might almost be described as a mountain in itself. Both of these latter-mentioned routes are somewhat spoiled by short sections of loose rocks, but neither are likely to be attempted by any but the most "rampant" expert. The same might almost be said of the various courses up the peak from the Zinal side. However, an exception may be

made regarding a remarkable route recently discovered by Mr. G. Winthrop Young, one of the most skilful and energetic of the younger generation of mountaineers.

The course, which has been called the Turmgrat, runs up a conspicuous rock "wrinkle" which rises from the Weisshorn Glacier to the top of the Great Tower on the north ridge. It is not usual to continue to the top of this unmistakable guidepost; at a point near the top where the cliff becomes almost impregnable to assault, it is advisable to descend a chimney to the right, whence some slabs are attainable. By means of these the *col* to the south of the Great Tower is soon gained.

The Zinal guides have placed a thousand metres of rope on various parts of the new climb, and now claim that Zinal possesses the most interesting way up the great White Peak, a point which few climbers will care to dispute, especially if they happen to be making the delightful valley of Zinal their headquarters.

CHAPTER XIX

THE DENT BLANCHE—THE ROTHORN AND OBER GABELHORN

“On every side now rose
Rocks, which, in unimaginable forms,
Lifted their black and barren pinnacles
In the light of evening.”—SHELLEY

THE old truism, “eyes have they but they see not,” is peculiarly applicable to the vast crowds who visit Switzerland every season; “feet have they but they walk not,” probably expresses the main reason for this.

The Americans who “do” Switzerland with a note-book in one hand and a camera in the other, and our own countrymen who rigorously stick to the programme of a cut-and-dried, conducted tour, or the fashion-following gentler sex, who “love” the Alps, but really spend the time flitting from hotel to hotel along the shores of Lake Lemman, none of these have a glimmering of the marvellous sights and wondrous beauties of the regions of the everlasting snows.

Even those who cross the St. Bernard by diligence or the Gemmi on mule-back, or more comfortably ride by rail to the top of the Gorner Grat, and think meanwhile that “distance lends enchantment to the view,” are vastly mistaken. How truly has Leslie Stephen said that “the glories in which the mountain spirit reveals himself to his true worshippers are only to be gained by the appropriate service of climbing into the farthest recesses of his shrines, and without seeing them no man has really seen the Alps.”

There is probably no place in Europe where this suggestion can better be put into actual practice than amongst the magnificent Pennine peaks which, approximately, form the extended north-westerly boundary of the Zermatt Valley.

There the ardent mountaineer will find opportunities of practising every form of his sport. Those who are also interested in geology or botany will find this district especially fascinating. The varied and complicated structure of the rocks is worth study, whilst few places in the Alps contain such rare and numerous specimens of the native flora as the slopes of the Mettelhorn, Triftkummen, or the sunny lower plateaux of the Weisshorn.

The climber pure and simple will never come away dissatisfied from the steep snows and stupendous, as well as complicated, rock ridges of the Dent Blanche. The Ober Gabelhorn affords a better insight into the intricacies of glacier travel, and its huge buttresses and dangerously corniced "gabel" are unique. On the Zinal Rothhorn he will first of all experience the delights and drawbacks of walking on moraines, which give access to varied snow and rock-work, whilst the upper section yields crag-climbing sufficiently entertaining for the most exacting expert.

The Dent Blanche, or the White Tooth (14,318 feet), may be considered the most difficult of the mountains in the Zermatt district. Though generally ascended from there, it is really more conveniently approached from the Val d'Hérens. From Ferpècle or Evolena it is usual to spend a night at the Bricolla huts, but it is more comfortable to adopt the methods of those staying at Arolla, and sleep *en route* at the Bertol Hut.

However, as it fell to my lot to visit the mountain from Zermatt, it may be advisable to consider that popular valley as the base of operations; in fact, the actual climbing is practically the same from both places. Up the south ridge lies the usual course, and all the different approaches to it converge on the snowy crest of the Wandfluh at varying distances below the more difficult rocks.

The Dent Blanche, though more than 400 feet lower than the Matterhorn, requires much longer to get into suitable condition; in fact, if its ascent is reasonably feasible, all the other Zermatt peaks will be comparatively easy of access. The "White Tooth" is notorious for its sudden weather changes; and it seems especially prone to electric disturbances, judged by the many exciting adventures that have befallen expert parties thereon.



Abraham

THE DENT BLANCHE FROM THE BERTOL HUT

THE ORDINARY RIDGE FROM THE WANDFLUH SLOPES UP ON THE RIGHT, WITH THE GENDARMES SEEN IN PROFILE, THE DIFFICULT WESTERN RIDGE RISES STEEPLY IN FRONT TO THE LEFT OF THE SUMMIT.

The Schönbühl Cave, on the right of the glacier of that name, is the usual *gîte* nowadays used by parties from the Zermatt district. Not many years ago there used to be a beautifully situated *cabane* on the southerly side of the rocks of the Stockje. Unfortunately, this was swept away by an avalanche and only the ruins now remain.

Guides invariably suggest that their patrons should sleep at the Schönbühl, but those who attempt the peak unguided are strongly advised to make use of the ruins of the old Stockje Cabane, or better still to sleep in the open on the rocks. Good weather will of course be necessary for the adoption of this latter suggestion; but, unless such conditions prevail, the Dent Blanche should not be attempted.

The reason why the *gîte* at the Stockje is recommended is that the route thence to the top of the Wandfluh is simple and easy to find in the early morning. The best means of approach is by the Col d'Hérens; and, though this is slightly longer than the way direct by the rocks from the Stockje or Schönbühl, it is possible to make considerable progress in the hours of darkness.

I have most delightful recollections of my first visit to the Dent Blanche. We were a party of three enthusiastic amateurs, and the guides were left behind amongst the other expensive luxuries at Zermatt. The loads we carried up to the Stockje that hot July afternoon were exceedingly heavy. Besides more than the usual articles of equipment, they included some dry clothing, and plenty of firewood collected amongst the pine-woods near the Staffel Alp. The *cabane* took a good deal of finding, because, as Pat would say, we discovered it was not there; we found that only its ruins existed—in fact, it leaked out afterwards that the guides had, by way of a joke, withheld the information regarding its collapse. There was nothing amusing about it at the time. We gained the rocks at twilight, and the last of the daylight was exhausted in the fruitless search for proper sleeping-quarters. However, the weather was perfectly settled, and we bivouacked in the open. A fire was soon lit in a rock-built fireplace, and its cheery rays illuminated the adjacent crags with a ruddy glow. We only carried some tiny cooking utensils belonging to a small spirit stove, but several old pans were found in the ruins, and

altogether we fared right royally. In the midst of the *table d'hôte* the sound of far-distant voices attracted our attention, and ere long we espied a curious wavering light high up on the glacier. The stars had peeped out long ago, and at first it was difficult to distinguish between their twinkling glow and that of the Alpine lantern which the distant party carried. They had evidently seen our fire, for they came on in what seemed a straight line, and answered our call with a Swiss *jödel*. On their arrival the party turned out to be three continental climbers, who had spent the whole day in finding a way on to the Wandfluh from the Schönbühl, and unsuccessfully attacking the Great Tower on the south ridge of the Dent Blanche. Their report of the state of the rocks was not very encouraging. Ice was apparently everywhere, and they bore traces of a hard tussle. We did our best to cheer them up with weak soup and a climbing chorus; at anyrate, they went off down to Zermatt at a great pace; somebody suggested that our music effected as good a scare as an avalanche.

After their departure we had peace. Some rude planks secured from the ruins made comfortable seats and we squatted around the blazing fire. The effect, as one looked round at one's companions, was Rembrandtesque, but, though the sight was beautiful to look upon, the chilly night air soon made its presence felt. The extremes of temperature between one's front and back suggested engine-driving. It was necessary to rotate periodically to avoid roasting on the one side and freezing on the other. As the fire smouldered away to a dim glow and our spare garments were called into service, a more equable state of warmth, or rather cold, was promoted. My companions soon fell off into unsettled sleep; to me the surroundings were altogether unusual, and sleep was impossible. I crept off to the edge of the rocks and looked out into the night.

The loneliness of those vast mountain solitudes was almost overpowering. Not a sound broke the stillness as I gazed down into the black, unfathomable, glacier-filled gulf at my feet. The great peaks bending round the vast hollow, as though listening to inaudible voices, truly accentuated still more mysteriously

"The silence that is in the starry sky,
The sleep that is among the lonely hills."

In front—dark, calm, almost ghostly—the shattered outline of the Matterhorn towered far above into the glittering heavens. Behind, the interminable glaciers and fearsome rocks of the Dent Blanche were catching the slanting rays of the moon which was rising behind the eastern shoulder of the Matterhorn. Sight is ravished at such splendours of mountain glory; human powers of description utterly fail to convey the inscrutable meaning which these scenes convey to those whose hearts answer to the voice of the mountains. Truly it is worth a journey to the Alps to have one night's bivouac amidst such surroundings. As the moon rose and flooded our hard beds with its cold rays, we all seemed to develop a soporific tendency; in fact, we might have slept until daylight, had not the sonorous snoring of the cook of the party awakened the "echoes of the hills" and his companions also. About 2 a.m. we "got under way," and followed the tracks of our visitors of the previous evening round by the Col d'Hérens to the slopes of the Wandfluh. In due course we gained the definite crest of the south ridge of the Dent Blanche, and at 5 a.m. breakfasted at the usual place, judging by the appearance of our surroundings.

Above this we had a foretaste of the bad condition of our mountain, and, but for the useful work performed by the other party, we should have had several long spells of step-cutting. At ordinary times this part of the ridge provides easy progress, but now it was necessary to use great care especially in crossing one broad, ice-filled couloir.

The sky was cloudless and the heat of the sun induced us to leave some spare garments at various stages on the long snow ridge. Gradually the Great Gendarme, or Tower, rose menacingly ahead, and at its foot the monotonous snow-grind came to an end. At first sight its repulsive appearance suggested immediate retreat. However, we knew that the summit was, under favourable circumstances, only about an hour and a half above our halting-place, and it was unanimously decided to inspect the obstacle at close quarters.

Long fringes of icicles depended from the upper reaches of the Great Tower, proclaiming its overhanging nature; the rocks were indisputably impregnable to a frontal attack. The previous party had attempted a *détour* on the left or western

side, but the curiously flaky ice, which encased all the crags on that side of the mountain, led us to favour a flanking movement on the opposite or eastern side. There the crags certainly looked more inviting, but closer inspection showed that all the interstices and moderately sloping ledges were decorated with hard, blue-black ice. The sun had begun to thaw its surface in the exposed places, but in the shade the frosty air still reigned supreme.

After descending slightly we discovered a sunny, subsidiary buttress, whose broken-up crest had caught the full glare of the sun's rays, and for fully 200 feet we enjoyed an interesting scramble. Unfortunately our arête terminated in a great bulge of overhanging rock, whose copious decoration of small icicles had been dropping on us in an annoying manner as we clambered upwards. A peep round the corner on the right disclosed the corniced crest of the main ridge not more than 150 feet above our heads.

The only way to reach this point was to traverse almost horizontally across the face to the right along a narrow ledge. This sloped downwards at a curiously uniform angle of about 20 degrees, and continued for several yards until the eastern face of the Tower assumed an easier angle and several chimneys intersected the cliff.

When we left our sunny arête, and crawled along the now shady side of the Tower, the situation soon became desperate. The ledge accommodated my body fairly comfortably, but the hand-holds were very awkwardly placed. To add to the difficulty, in several places ice was present, and it was of that black, transparent variety which required powerful strokes with an ice-axe to make any impression on its intractable surface. The position was somewhat cramped, and the cutting of notches to accommodate the knees proved laborious. But the worst feature of all was, that the length of the ledge caused the whole party to be creeping along its slippery and anchorless slope at the same time. The slightest slip on the part of any one of the party might mean the end of three climbing careers. It could not be much less than 1,500 feet to the glacier slopes below.

The last man on the rope was especially voluble. After telling us that he had promised to take a party over the

Rothhorn next day, he expressed conscientious scruples about breaking his word and some portion of his cranial anatomy at the same time. I remember smiling at his reasoning, and hanging on to small slippery holds, whilst he further urged retreat in poetical mood with a parody of well-known lines—

“He that climbs and comes away
Will live to climb another day,
But he that is in climbing slain
Will never live to climb again.”

In cold blood it is seen that the first two lines are not quite technically sound, but that day, whilst clinging to that ice-bound cliff of the Dent Blanche, the logic was weirdly convincing. Moreover, further progress became impossible, on account of the ledge suddenly narrowing, and we reluctantly gave up the attempt.

When the snowy ridge below the Great Tower was regained, the afternoon sun was loosening the snow off the abrupt western precipice of the Matterhorn; the whole face seemed to be alive with avalanches. It was dark before we reached Zermatt with our heavy luggage.

Some people may look upon such a day as a failure. Certainly the summit had defied our best efforts; but the day's experiences, in themselves, were an education, and our respect for the Dent Blanche had grown immensely.

I have since learnt that above the Great Tower there is no serious difficulty, though for fully 500 feet most excellent rock-climbing is found by keeping to the crest of the main ridge. Several gendarmes bar direct progress; but these usually can be passed on the western side by making somewhat exposed traverses, where the whole party are liable to be in unsafe positions at the same time. Such situations are the outstanding feature of the Dent Blanche, and even under the very best conditions it is not a suitable peak for novices.

A passing mention may be made of the other principal routes up the Dent Blanche. The impossible-looking eastern ridge has been climbed on two or three occasions, but each party appears to have taken a different route at some part or other of the course. Two guides and two well-known

English experts made the first ascent on this side of the mountain, and they were so impressed with the performance as to christen the climb the Viereselgrat, or Four Asses Ridge. However, some experts hold theories, that a fairly easy way to the summit awaits discovery somewhere in the vicinity of the eastern ridge. The rocks are seldom found in good condition on this side of the mountain, otherwise these theories might have been proved to be correct.

A few years ago, when the peak was in the best condition remembered by the present generation of guides, a remarkable ascent was made somewhere on the north-easterly face; the route is not likely to become popular.

Undoubtedly the finest ridge on the Dent Blanche, from an expert mountaineering point of view, is that terrific, western arête, which rises from near the Alp Bricolla direct to the summit cairn. I have no practical acquaintance with this ridge, nor ever hope to have. My greatest friend, Owen Glynne Jones, who shared with me the joys and pleasures of many glorious mountain holidays, lost his life on the upper reaches of this wonderful ridge.

The catastrophe, whereby four valuable lives were lost, may be considered one of the worst in the annals of Alpine climbing. The many remarkable features of the accident, and the lessons to be learnt therefrom, induce me to include a short description of what happened on the Dent Blanche that ill-fated Monday morning, the 28th of August 1899.

Owen Glynne Jones and Mr. F. W. Hill, with the guides Furrer, Zurbriggen, and Vuignier spent the previous night at the huts on the Alp Bricolla, and started for the Western Arête of the Dent Blanche in the early morning hours. It had originally been intended to climb on two separate ropes, but the difficulties encountered on the great smooth slabs of the lower part led to the two ropes being joined together. They then climbed in the following order—Furrer, Zurbriggen, Jones, Vuignier, and Hill. The course proved of considerable difficulty, and the leader constantly required assistance from his companions below. All went well until about 10 a.m., when they reached the foot of the gendarme, which forms the last serious difficulty on the ridge. Let Mr. F. W. Hill, who was the sole survivor, now continue the story.

"We then found that the most obvious route was glazed, and Furrer traversed to the left to a smooth buttress, which offered another solution. He got a little way up but found the holds so bad that Zurbriggen and Jones held an axe for his feet. Vuignier and I were on the same level, but to their right and as far off as our ropes allowed. Then I saw Furrer's hands slip and he fell back on to the other two, knocking them over. Without a cry they fell down the slopes, pulling off Vuignier in his turn, but my rope must have been caught in a cleft just behind him, for to my surprise it broke at his waist and I was left alone. I made my way to the summit in about an hour and a half, and found to my dismay that a party of two, whom we had seen on the ordinary route, had gone down out of sight. Descending I reached the lowest of the big gendarmes, the one with a deep, narrow fissure, when a sudden mist and snowstorm hid everything from view. I had no watch, but judged it was between one and two o'clock. I found a cleft where I was sheltered from the wind, and, the mist persisting, remained here until about midday on Tuesday when the fog cleared and I could see the steps below. The snow-covered rocks were difficult, and, not knowing the way down the Wandfluh, I also lost time there, but was well on the way along the moraine path to the Stäffel Alp when the sun set. The night being very dark, I have no clear recollection of anything until about ten o'clock on Wednesday morning; I awoke then and in a quarter of an hour reached the chalet on the Staffel Alp path. I arrived at Zermatt soon after eleven o'clock having had no food for fifty hours."

Mr. Hill's escape is one of the most remarkable in the history of mountaineering. No one but a man of iron nerve, and exceptional powers of endurance combined with great mountaineering skill, could have come alive out of such a terrible experience on one of the most difficult and dangerous peaks in the Alps.

Thus perished one of the most accomplished and fearless mountaineers of modern times. We had in solemn moments sometimes discussed the question of accidents, and I have no doubt that he died in the way he would himself have chosen. The end of Owen Glynne Jones, the cheeriest of companions and most kindly of friends, was a pure accident, sudden and

unexpected. How aptly has the poet sung of the voice of the mountains; the Dent Blanche might almost be speaking in the words—

“Crowned with the glory of the eternal snow
We held high converse with the stars and sun,
The little race of men how should we know
Or the low levels where their course is run.
Yet sometimes come the footsteps of the brave
Who dare the perils of the icy steep,
Joy, health, and fame we give them—or a grave,
The good we welcome but the best we keep.”

Let us now turn to the consideration of the Ober Gabelhorn and its neighbours.

Few high Alpine valleys can show such an imposing array of peaks as that wherein reposes the small hut of the Trift. In these days it is frequently given the more dignified title of the Trift Hotel. This is scarcely an improvement, nor is the new mule track, which obviates the intricate but delightful ascent by the recesses of the Trift Gorge, an unmixed blessing. The climber's pleasant little domicile is usually much overcrowded during the season by ordinary visitors. Early or late in the year it is comparatively deserted, and the enthusiast will find it an excellent centre from which to make a sort of right and left barrel shot at some of the surrounding peaks on consecutive days.

At the head of the great glacier-filled hollow, the Ober Gabelhorn on the left, and the Zinal Rothhorn on the right, occupy the pride of place. The snow-capped peak of the Wellenkuppe stands between the two, and on account of its nearer situation it is apt to dwarf the grand proportions of its superior neighbours.

The pinnaced crest of the Unter Gabelhorn rises grandly on the extreme left; its outline strangely like some aspects of the Coolin Sgurr nan Gilleann, whilst on the opposite side long, easy slopes lead by the Triftkummen to the top of the Mettelhorn. The two latter mountains are almost invariably climbed in one day direct from Zermatt, but their three higher compeers are best attacked after a night has been spent at the Trift Hut. From its doorway the crumbling snout of the Gabelhorn Glacier, with the Trift Glacier on the right, looms largely in the view, and just to the right of it a long medial

moraine leads up into the very heart of the snow and ice world.

In making the ascent of the Ober Gabelhorn the sharp top of this moraine provides a natural pathway, which is followed until it bends to the right and becomes submerged under the masses of glacier ice which converge from either hand. It is advisable to leave the moraine as soon as possible after the upper part of the shattered ice fall of the Gabelhorn Glacier has been passed on the left. The Trift Glacier on the right also exhibits some fine specimens of transverse crevasses.

Easy snow slopes now ensue until a fine view is obtained of the Gabelhorn and the whole of the upper reaches of its glacier. Several large crevasses will be visible, but a route can fairly easily be followed through them to the *col* overlooking the Arben Glacier, and below the rocks of the final peak. Whilst traversing the glacier and making for the *col*, it is advisable to keep at a respectful distance from the cliffs of the Wellenkuppe on the right; the place is notorious for accidents from falling stones. The upper rocks of the Gabelhorn are treacherously loose in many parts. If the party is a large one it is a good plan to proceed two on a rope up this part of the peak, which is composed of a broad buttress of schistose rocks. Several courses can be followed without one party endangering the other from accidentally dislodged fragments.

A large number of climbers who ascend the Ober Gabelhorn are unable to gain the actual highest point. There are two sharp rocky tops, frequently snow-capped, with an almost feathery ridge of ice connecting them. This is exceedingly steep on either side, and often corniced in such a manner that the crossing of it entails unjustifiable risks. I have noticed that the guides usually leave the amateurs to decide as to the feasibility of the traverse, and this plan generally works out wisely and well. The place looks horribly dangerous to all ordinary amateurs, and they return quite satisfied with the lower peak. After all, there is only a difference of a few feet, or, in some snowy seasons, inches, between the altitude of the two peaks.

It may be mentioned that there is another climbers' hut on the other side of the peak. This is the Mountet Cabane. Roughly speaking, it stands at the apex of an imaginary

equilateral triangle whose other angular points are the two peaks of the Zinal Rothhorn and the Ober Gabelhorn.

The traverse of the latter peak from the Mountet to Zermatt was described to me by a friend as the finest ice expedition in the Alps. The amount of step-cutting involved in the ascent of the long ice slope of the peak had been quite abnormal. The strain on certain restricted muscles whilst standing for hours in the small steps had reduced my friend to such a state of stiffness that a day off was actually necessary. By some climbers this is considered quite a calamity.

The route for the Wellenkuppe is the same as that to the Ober Gabelhorn almost as far as the point where the ice of the Gabelhorn Glacier is gained. There it is necessary to turn to the right and pass in that direction across a small glacier which hangs embosomed on the breast of the peak. The surface is steep, and I have seen the snow in a very avalanchy condition at this point. About mid-day there is also some danger from falling rocks, as the cliffs above are very loose and unstable.

On the farther side of the glacier it is advisable to climb straight upwards until a rocky ridge is gained, which offers easy scrambling direct to the snow-capped summit.

The conspicuous ridge which connects the Wellenkuppe and the Ober Gabelhorn has been traversed on a few occasions. It is a difficult undertaking to thus "bag" both peaks in a day. Disappointment is often the only reward for those who make the attempt, because an exceptionally incorrigible gendarme guards the narrow ridge midway between the peaks, and when the snow is in a certain state the passage is impossible (see illustration opposite).

In the afternoon it is safer to make the descent from the Wellenkuppe by the long snowy slopes which lead down and around below the Triftjoch. The glacier is fairly level at this point, and it can be followed until the moraine leading up to the Rothhorn is accessible by turning slightly to the left.

Near the point of divergence between the two first-mentioned routes up the Ober Gabelhorn and the Wellenkuppe, it fell to my lot to witness the closing scenes of a most remarkable accident. We were descending from the Ober



Abraham

THE OBER GABELHORN FROM THE WELLENKUPPE
THE DENT BLANCHE IS SEEN ON THE RIGHT, CAPPED WITH MIST

Gabelhorn, and this is what we learned from the guides concerned. A stout German climber was descending from the Wellenkuppe, and he had refused to have the rope tied closely round his waist. Doubtless that part of his anatomy had grown tender through the excessive pulling of the rope during the descent of the rocks. Probably to add to his bodily comfort, whilst trudging over the snow-covered glacier, he had gradually enlarged the loop without attracting the attention of his two guides.

When crossing a hidden crevasse the guides were suddenly surprised to hear a scuffle and to see that the unfortunate amateur had disappeared through the loop of the rope and fallen into a big crevasse. No answer came to their repeated cries to their lost companion, and a glance into the depths of the crevasse showed that the chances were greatly against the survival of its occupant. The guides rushed off to the Trift Hut for help, and a large party, including a Swiss doctor, eventually arrived with ropes and sacks to convey the remains down to Zermatt. My own guide, being the most experienced man in the party, was lowered with a doubled rope down into the crevasse for about 60 feet, and those above became greatly excited when voices were heard rising from below.

A remarkable conversation was meanwhile in progress at the bottom of the crevasse. The guide found the stout German sitting on some soft snow upon which he had luckily fallen. It was a marvellous escape, for, with the exception of a broken leg and a few minor bumps and bruises, he was little the worse for the adventure. In fact his rescuer found him reclining on the snow and smoking a cigar to modify the solitude of the situation. He absolutely refused to be pulled up to the surface until he had bargained at some length for the cost of it all. These search parties in the Alps are ruinously expensive, and it appeared that a friend of his had been badly treated in this respect.

The expression on the weather-bronzed faces around the crevasse, when the guide came up with the news and the conditions of rescue, was a sight never to be forgotten; unfortunately my camera was not available for a photograph of the scene. However, after hearing that all was well, we resumed our downward march, and one felt a strange

admiration for the plucky Teuton in the depths of the glacier.

Owing to its individual peculiarities and somewhat deceptive dangers, the Ober Gabelhorn is usually considered a somewhat unsafe mountain. On the other hand, the ascent of the Zinal Rothhorn is, with proper care, one of the safest and most enjoyable excursions to be made in the Zermatt district. It was first climbed from the opposite or Zinal side by way of the north ridge. Leslie Stephen's well-known description of this achievement in *The Playground of Europe* has worthily been described as "the most delightful contribution to mountain literature extant."

The Mountet Hut nowadays provides an excellent base of operations for an attack on the north ridge, and the route can be seen plainly from the hut; in fact, the difficulty is not in finding the way, but in following it.

There are three principal pinnacles on the north ridge; these are near the top, and the difficulties are concentrated in their safe negotiation. The upper one usually offers the most resistance, and if the rocks are glazed it may become well-nigh impassable. The base of the pinnacle is approached by creeping along a very narrow ridge of rock, which does not afford very satisfying foot-hold when the horizontal attitude of the body is changed for the vertical one. The rocks are steep but firm, and, though the situations are more sensational, the place strongly resembles the upper part of the Scawfell Pinnacle in Cumberland.

The Zinal Rothhorn is sometimes traversed, by expert parties, over the north ridge and down to Zermatt, but the ordinary ascent is more frequently made from the more popular side. From the Trift Hut an indefinite track leads up to the foot of a conspicuous moraine which lies to the right of the one utilised for the Ober Gabelhorn. The routes are the same for fully half an hour after leaving the hut, and in the darkness of early morning some care is required to find the exact place where the indefinite tracks diverge. Guideless parties would do well to carefully prospect this section the evening before. The sharp crest of the moraine is followed until it vanishes in the icy snow slopes below an unmistakable belt of rocks that rises like a huge wall ahead. It appears to cut off the

peak from frontal attack, and it is best to put on the rope here and make a way across a small, crevassed glacier on the right. The wall of rock can be ascended at several points, but the most vulnerable place will be obvious to the trained eye. It is about half an hour's walk from the head of the moraine.

In the height of the season this short pitch, which leads to an easy, snow slope above, is not very difficult. But in the autumn, when the ice has receded from the base of the rocks and left them smooth and hard of access from the glacier, this section is the most trying part of the whole climb.

Above this pitch most parties diverge slightly to the left, to avoid another belt of rocks higher up. By doing so it is soon possible to utilise a continuously steep slope of snow which leads up to the Saddle, which is such a conspicuous feature of the Zermatt side of the Zinal Rothhorn. Cornices are sometimes in evidence on the right-hand side of the narrower part of this ridge, which can be traversed with ease, mostly on its western side, almost as far as the point where it abuts against the high impending face of the final peak.

The rocks on the western face of the mountain are set at a more favourable angle, and a curious groove cuts right across the cliff, to disappear ultimately in a short broken-up couloir, which continues upward to a definite notch in the skyline to the left of the highest point. Thence to the summit is the most entertaining portion of the whole climb. With the exception of two or three places, the rocks are reliable, and, though they are steep, there is usually a hand- or foot-hold when required.

Shortly after rounding an exciting corner, where the view downward for nearly 2,000 feet to the shattered surface of the glacier adds vastly to the sensation of difficulty, the topmost cairn is within reach.

Scarcely any of the Zermatt peaks can rival the Zinal Rothhorn as a view-point. The summit is not high enough to allow the climber to look down with disdain, if the expression may be pardoned, on the neighbouring peaks, but it seems so placed that the vast mountain masses assume their correct proportions, and rise separate and majestic from their surroundings.

The grand ridges of the Täschhorn and Dom draw the

attention, rising apparently in great vertical steps above the lower slopes. By contrast with the glittering snows which form the icy pedestal of our standing-place, their pine-clad slopes accentuate the deep gloom of the narrow valley of the "Cosmopolis" whence we have come. But there are no signs of the busy life which goes on far down below; perchance, even the scar of the railway up the Gorner Grat is hidden by rolling masses of vapour, which rise up as though out of a huge cauldron from beyond the sunny Italian slopes of the Matterhorn. Now and again the graceful pyramid shakes off the cloud mantle, and the gigantic, northern precipice rises sombre and black above the frozen ruins at its foot.

The icy slopes of the Dent d'Hérens glisten ominously through the clearing mist, whilst farther to the right the comparatively harmless-looking Gabelhorn, and the Dent Blanche of repellent aspect, are bathed in all the glories of unclouded, Alpine sunlight.

Afar off, almost fading into the yellow atmosphere of distance, a paler gleam indicates the presence of Mont Blanc, nearly 80 miles away. Farther to the right, as though to add to the sternness of the surroundings, the low hills and distant plains of France stretch tamely away like an illimitable grey sea of lowland haze. The snows of the Oberland are almost hidden by wisps of afternoon mist, but the graceful peak of the Weisshorn, with the great tower on its northern ridge seen in profile, monopolises the easterly view. The near foreground with its weirdly fantastic rocks adds considerably to the effect—"all around lie the tumbled fragments of the hills, hoary with the memories of forgotten years"; verily a lifetime seems but a shadow in the vast solitudes of these everlasting hills.

Turning to the descent, it ought to be mentioned that of recent years serious accidents have happened on comparatively simple places. There have been several, narrow escapes from falling rocks near the summit. Some parties have not come off altogether unscathed. The following remarkable coincidence is worthy of mention to show how mere good fortune prevented the loss of a whole party.

"In the autumn of 1894 Dr. G. Horrocks was descending the Rothhorn with the two Zermatt guides, Peter Perren and

Joseph M. Biener. They were a short distance from the top, and Biener was acting as leader, with the amateur in the middle of the rope. Perren, who was last, was standing behind and holding on to a fair-sized rock, round which he was paying out the rope; whilst Dr. Horrocks crossed the slab and Biener gradually pulled in the slack. Suddenly the rock in which Perren placed such confidence came out, and bounded down the mountain-side. Perren slid rapidly down the steep rocks; Dr. Horrocks, who had no foot-hold and very little hand-hold, was jerked from his position, turning a somersault, and becoming momentarily stunned from his head striking against the rock. The strain on the rope was too great for Biener to withstand, and he was dragged down too. The whole party half tumbled, half slid down the very steep, smooth rocks for 30 or 40 feet, when the rope between Dr. Horrocks and Perren caught behind a projecting rock, and brought them both to a standstill. Perren found himself landed in a small patch of soft snow some 15 feet below the rock which had so fortunately engaged the rope, while Dr. Horrocks, some 7 feet higher up, though at first suspended with his back to the steep rocks, was very soon able to get more or less foot-hold. Poor Biener had the extra length of his own rope still to fall, and when the strain came, the rope broke, according to one account, half-way between him and Dr. Horrocks; according to another, rather nearer to the later. Biener fell down on to the Durand Glacier some 2,000 feet below. Fortunately another party was in close proximity and the guides rescued Dr. Horrocks from his dangerous position."

It is not sound mountaineering practice to glissade down the long simple-looking snow slope which leads from the Saddle to the upper belt of rocks. After midday the lower section, which grows steeper, is apt to become icy or coated with loose snow, and climbers have found themselves unable to arrest their downward progress when desired. If this is not promptly done the party will probably be carried a few yards farther, and flung over the tremendous precipice on to the Trift Glacier. The perils of this place are not generally known, but recent fatalities suggest that the point should be mentioned. The descent of the lower belt of rocks is facilitated by using a

doubled rope hitched round a *piton*, which has been fixed in a somewhat hidden but suitable place. The descent from the Trift to Zermatt requires no further mention, but, if a climb is premeditated for the following day, frequent calls at the many refreshment places passed *en route* are not advisable.

CHAPTER XX

THE MATTERHORN

“ But soaring snow-clad through thy native sky
In the wild pomp of mountain majesty.”

MOUNTAINEERS who have never had the good fortune to see the Himalayas usually declare that the Matterhorn is the most beautiful of all mountains. Whether seen glistening in the full glory of the sunlight ; or, as is more often the case,

“ ‘Kerchiefed in comely cloud,’ ”

it conveys an impression of calm, isolated grandeur, and looks down with serene indifference on the mundane matters that encircle its base and even infest its huge cliffs. But it is not always thus, for in storm the Matterhorn can be terrible. When the fierce hurricane shrieks across the ridges, flinging masses of snow-laden vapour athwart the crags ; when ice and rocks are rent amidst the mad confusion of the elements, then does the Cervin assert itself and wreak vengeance on those who thoughtlessly brave the dangers of its sanctuary.

Even to this day those who live in the tiny châteaux which dot the flower-clad slopes at its foot hold strange superstitions regarding it. Their religion offers some comfort ; but now and again the “terrible mountain,” as some of these natives have called it, flings some of their brethren into eternity, or sends down an avalanche of destruction on themselves and their lone dwellings.

It has been said that the goblins, elves, or other supernatural beings who haunt the crags have been scared away by empty sardine-boxes, broken bottles, and other signs of civilisation. We can afford to smile at such things ; but those Swiss peasants who live in the remoter parts of the Zermatt

valley find their lives so intermingled with the Peak above the Pastures, that only on superstitious grounds can they explain its strange moods, or understand its weird fascination for some of their own race and peoples of distant lands.

However, these mountain-dwellers will, as time passes, learn more about the Matterhorn, as others also have learnt. It is not very long ago since Ruskin wrote: "There is no aspect of destruction about the Matterhorn cliffs. They are not torn remnants of separating spires, yielding flake by flake and band by band to the continual process of decay. They are on the contrary an unaltered monument seemingly sculptured long ago, the huge walls retaining yet the forms into which they were first engraven, and standing like an Egyptian Temple."

Those who have clambered up the great eastern cliff of the Matterhorn, and more especially those who have had the fact driven home by a convincingly solid bump from a rock falling on some part of their anatomy, will scarcely agree with this great literary authority.

Very few mountains in the Alps are changing as rapidly as the Matterhorn. The fact is unmistakable if the mountaineer rests awhile on a fine summer's morning amongst the fantastic pinnacles which stand on the weather-shattered eastern ridge. At sunrise a great calm wraps the vast cliffs in a peaceful embrace. But gradually the welcome warmth of the sun's rays penetrates everywhere, and strange noises, and movements almost as of life, begin to disturb the solitudes. There is a small grating sound somewhat like the gnawing of a mouse in a deserted room, the ice which holds a small stone *in situ* has lost its hold, and the liberated fragment gently rolls over and downwards to disappear from sight.

A few seconds later harsh sounds rise from below, the small stone has upset others of similar calibre, and these in turn have dislodged some larger fragments. It is an avalanche in embryo. Almost before there is time to realise the fact, a thunderous roar echoes upwards and across the cliff. A peep over the edge will show that the lower slopes are practically alive with flying fragments. Great boulders are hurled in high trajectory; the very mountain trembles. Crash! Bang! Ever downward flies the chaotic mass, until with a dull roar



Abraham

THE OLD CABANE ON THE MATTERHORN

it plunges into the vast snow slopes. With the mightiness of the splash the snow is flung high up into mid-air, to descend again like the frothy foam of excentric waterfalls, and the avalanche, now in full and mad career, casts itself fiercely down on the glacier. Then as the slope gradually lessens the clamour grows feebler and eventually subsides, a mere rumbling in the bowels of the glacier.

Almost all day and every day the same process is in action. The noise and rattle of falling stones is incessant. Hundreds, and at times thousands, of tons of rock must come away every day during fine weather, and this fact of yielding "flake by flake and band by band to the continual process of decay" makes most mountaineers wonder what the aspect of the Matterhorn will be a few hundred years hence.

However, in present times they are more practically concerned in averting the dangers of these falling stones. Numerous accidents, fatal and otherwise, have occurred through this weakness of the Matterhorn. These, for the most part, have happened on the Zermatt side.

As seen from near the Riffel Alp the peak appears to possess a well-defined ridge which starts practically at the Hörnli, above the Schwarz See, and continues to the summit. Just above where the milder slopes of the Hörnli abut against the upper pyramid this north-east ridge assumes its steepest angle. The Matterhorn Hut stands on a rounded débris-covered shoulder immediately below this section. The climber who essays the ascent is confronted with this steep and hitherto unscaled section of the ridge; he is naturally inclined to follow the ordinary course, and traverse away to the left over simple rocks to gain the easy slabs of the great eastern face (see Frontispiece).

It is found necessary to traverse a considerable distance before the ascent can be conveniently made directly up the face in order to arrive near the crest of the north-east ridge. Once this is gained the best route, roughing speaking, keeps throughout near the top of the ridge, but mostly on the east side.

At the point where the long traverse, previously referred to, ends and the ascent of the eastern face begins there is a well-marked couloir cutting deeply into the great slabs. It will

readily be understood that this acts as a natural funnel for much of the loose matter which is continually becoming detached from the upper part of the eastern face, either by natural weathering or human agency. This Great Stone Couloir, as it is called, has been the scene of many disasters.

In the early morning, before daybreak, it is comparatively safe; but later in the day, or in the afternoon when several parties are descending, it may become a veritable death-trap. All parties should co-operate to avoid the dangers, and as a rule some arrangement is arrived at for one "caravan" to rest whilst another gets out of the line of fire. However, many misunderstandings and curious contingencies arise, and as long as this wide traverse on to the eastern face has to be made fearful accidents are bound to occur.

Of course more time would be required in making a way more directly up the ridge from the hut, because difficult places are plentiful; but such a route would eliminate by far the greatest danger of the Matterhorn, and provide much more interesting climbing. A party of us have proved that this route is possible for a considerable distance, in fact it seems quite feasible throughout, and it is difficult to understand why the guides have not seriously tackled the problem. For their own safety the variation would be a great advantage, and the usual ropes could be fixed at several places where traffic might be delayed or stopped by the natural difficulties.

Doubtless this suggestion to further "betrammel the noblest peak in the Alps with cord and gyve" will shock the feelings of many conservative critics. From an æsthetic standpoint the suggestion is indefensible, but in these practical matter-of-fact days such romantic objections do not stay progress.

This question of fixing ropes and chains to facilitate the ascent of the great peaks met with much opposition from the pioneers in earlier days. Many of them refused to subscribe towards the funds for the fixing and upkeep of the ropes. Even the guides in some districts looked on the new invention with disfavour; they said that everybody would soon be able to reach the summit without their help, and thus they would lose their means of support. However, in the case of the Matterhorn, were it not for the fixed ropes more than half of the ascents made at the present time would be impossible, and

the guides would suffer accordingly ; for scarcely one per cent. of those who reach the summit do so without professional aid.

Nowadays there is a regrettable tendency on the part of expert climbers to write disparagingly of the Zermatt side of the Matterhorn. They suggest that the ropes have robbed the ascent of all technical interest, and the only difficulties consist in avoiding the use of broken wine-bottles as hand-holds and dodging the falling, empty sardine-tins. It is pleasing to observe that empty, potted-meat jars are not mentioned ; recent developments in America have at least averted one danger. Now all these platitudes might convey an impression that the Matterhorn is one huge refuse heap ; which is, of course, nonsense, for it is quite possible to make the ascent without encountering any signs of human visitation except at the huts and on the summit.

As to the fixed ropes, there is no need for an expert party to use these at all ; but cases have been known of persons affecting to despise such aids being the very people to use them most.

Personally I have a great respect for the Zermatt side of the Matterhorn ; an ascent by its so-called "easy way" in 1898, under adverse conditions, provided the most difficult climbing and thrilling experiences I have ever encountered on any mountain.

Given good conditions there is no difficulty in climbing the Matterhorn by any of the ordinary ways, if the fixed ropes are used, and two strong guides are engaged. On the Zermatt or north-east side there are scarcely any of the former artificial aids, except those on the final stretch leading from the Shoulder to the top. These can be avoided by bearing away to the right and then clambering up some easily inclined but rather smooth slabs until the steep snow slopes, which sweep gracefully up to the summit, are attained. The views down the great northern precipice *en route* are extremely impressive. It is sufficient warning to point out that this was, more or less, the route followed by Mr. Edward Whymper's party when they made the first ascent of the Matterhorn on 14th July 1865. It is unnecessary to recall details of the terrible disaster which happened during the descent ; this has been done elsewhere.

Everybody who takes a serious interest in the Alps has some knowledge of how the Matterhorn, for many long years, defied all the best efforts of the greatest climbers, and how that three days after the ascent from Zermatt four Italians climbed the oft-attempted south-west ridge from Breuil.

Considerable feeling, amounting almost to jealousy, existed as to whether the Swiss or Italian ridge offered the better route. The fact that the second ascent was made in safety from the south-west rejoiced the hearts of the people of Breuil, for they thought to reap a rich harvest from the future climbers of the Cervin. Nowadays it is easy to gauge the respective merits of the two opposition routes. Zermatt is a large, flourishing, up-to-date village or town; Breuil is comparatively deserted.

A rough list of the ascents was kept up to the year 1880; and 136 were then recorded on the Swiss side against 23 upon the Italian side. Several other parties traversed the mountain from Breuil to Zermatt and *vice versa*. However, the Italian side had gained an unenviable reputation for difficulty, and by far the larger proportion of these parties preferred to ascend on this side and descend by the easier Swiss ridge. The same proportion would almost apply at the present time.

The exploitation and accessibility of Zermatt are probably the principal reasons for the comparative neglect of the south-west ridge. During a fine season scores of ordinary tourists are pulled up and pushed down the north-east ridge by the guides. The tariff for the peak is 100 francs, and the guides usually earn every centime of it; in most cases they also deserve the Royal Society's Medal for the Preservation of Life.

To convey some idea of the popularity of the Matterhorn during a good season, it may be stated that on a certain day during August last year forty-four people were on the summit at one time. On the other hand, a few years previously the weather was continuously uncertain, and scarcely as many ascents were made during the whole year.

Thus, though the Zermatt side is often crowded, the Breuil ridge is clear of traffic; it is practically left in possession of the genuine mountaineer. On this account it is

almost a pity that so many fixed ropes and chains desecrate its otherwise magnificent crags. The upper rocks are so festooned with these, that it is almost impossible to avoid them; and under present conditions there is so little difference between the difficulty of the two favourite ridges, that an expert rope-climber might consider the ascent of the south-west the easier of the two.

In making the ascent of this ridge from Breuil the Col du Lion is first attained on the left by way of the slopes of the Tête du Lion, often called the Staircase Route; or by a snow gully leading to the Col from the Glacier du Lion.

The genuine climbing begins above the Col and the rope is usually worn until the hut is gained. This is finely situated near the Great Tower, and must be quite 12,750 feet above sea-level.

Climbers staying at Zermatt or the Schwarz See Hotel will find it best to reach this hut by crossing over the Furggrat and traversing under the great southern precipice of the Matterhorn. In this case it is not necessary to work round the face as far as the Col du Lion; there are several ways up to the ridge just below the hut. It should not be forgotten that there is some danger from falling stones during the traverse, but I have not heard that any serious accident has yet occurred.

It is usual to leave the hut just before dawn next morning; somewhat loose rocks are encountered a few hundred feet higher. Above the south shoulder there is some very interesting climbing along the shattered ridge, which is sometimes called the Tyndallgrat, until, after passing some remarkable gendarmes, the great final peak towers grandly up for fully 750 feet.

This was the part whose appearance scared away all the early explorers, though very few of them prior to the first ascent saw it at close quarters. The route now followed differs from that originally used; by means of the fixed ropes it continues in a comparatively straight line up places that would probably be impossible without this artificial assistance.

The lower part of the final section does not offer much resistance, but ere long the climber "who thinks the ropes

too difficult" will be forced away to the left almost on to the great cliff on the Zmutt side. From the scarcity of sunshine on this north face the rocks are generally covered with snow and ice, which, combined with the steepness of the crags, makes the route at several points extremely difficult. But, by bearing slightly to the right, rocks which are steeper but more weathered can be utilised, and eventually a curious ledge is gained. This continues as a more or less well-defined gallery all round this side of the peak, and it slopes downwards somewhat towards the western end. It can even be distinguished from Breuil, cutting a tiny notch in the skyline of the upper vertical precipice. In the early days this point was attained more or less directly from the arête of the Tyndallgrat, and then the ledge could be followed upwards and round to the left above the great north-westerly cliff.

Climbers who are familiar with English climbing will get some idea of this remarkable ledge, if it is compared with that which stretches from beyond the Split Blocks to the Nose on the north side of the Pillar Rock. Of course the ledge on the Matterhorn is longer and situated in a more sensational position on account of its greater height. Carrel's Ledge, as the place is called, can be followed away to the left until only a deep cleft, which is rather like Savage Gully on the Pillar Rock, separates the climber from the Zmutt Ridge. A great "nose" of overhanging rock bars direct progress to the summit. However, it is just possible to descend into the cleft or gully, and by scrambling slightly to the left, the Zmutt Ridge can be easily attained, whence the Italian summit is quickly reached.

The top of the Matterhorn consists of a narrow ridge about 100 yards long; whether it is composed of rock or snow depends largely on the preceding weather conditions. This ridge curves slightly downwards in the middle, and the Swiss peak at the northern end is usually a few feet higher than that at the Italian or southern extremity. The altitude is given on some of the Federal Maps as 14,780 feet above sea-level.

The national boundary between Switzerland and Italy runs right over this summit ridge of the Matterhorn, but the

ubiquitous customs officers have never been known to stop climbers when crossing the peak. However, the situation of the dividing line does not encourage smuggling on a very large scale; much luggage, even though it be in the form of the best cigars, is apt to prove a weariness to the flesh during the traverse.

Just as the name of Edward Whymper is inseparably connected with the Zmutt Ridge of the Matterhorn, so is that of Jean-Antoine Carrel associated with the more difficult Italian side of the great peak. During the long disappointing years of failure he was the only guide who steadfastly held to his opinion that the Matterhorn was not inaccessible. He first scaled the huge precipices on the Italian side, and during the succeeding years the Mont Cervin became known in his native valley as Carrel's Peak. Those who are conversant with Carrel's marvellous performances will agree that no finer cragsman ever lived.

After an unsullied career as a first-class guide he perished on his own mountain on the 25th of August 1890, at the age of sixty-two years. His death was in accord with his previous character. He died from fatigue and exhaustion near the foot of "the staircase" below the Col du Lion, after safely piloting his companions through the dangers of a terrible experience of storm and stress on the south-west ridge.

The way up the Matterhorn from Breuil is not visible from the immediate neighbourhood of Zermatt. Those staying there who are anxious to gain an excellent idea of this wonderful south-west ridge would find their best opportunity to do so afforded by an expedition to the rocks of the Stockje. In making this very pleasant excursion it is preferable to pass through the châteaux of Zermatt and, avoiding the Staffel Alp, keep throughout to the right-hand side (looking up) of the Zmutt Glacier. The views of the great peak *en route*, with its mighty crags, icy slopes, and overhanging glaciers, are most imposing.

The scene from near the ruins of the old cabane on the Stockje is almost the finest sight of its kind in the Zermatt district. The crevasse-riven surface of the vast glaciers forms a worthy foreground to the more distant view

of the magnificent south-west arête, which rises like a huge cyclopean staircase from the Col du Lion to the crest of the shapely pyramid of the Cervin.

There still remain two other ways up the Matterhorn which deserve some slight mention. The Zmutt Ridge is the most important of these; it was first climbed in September 1879 by the late A. F. Mummery with the guides Alexander Burgener, Petrus, and Gentinetta. Their route cannot be distinguished very satisfactorily from the Stockje; portions of it are hidden by intervening buttresses, and the foreshortening effect, as well as the complicated nature of the main and lateral ridges, make the easy places look impossible, whilst the difficulties can scarcely be judged correctly.

The first party bivouacked below the long, snowy ridge, which is conspicuously seen on the sky-line from Zermatt to the right of the main peak. Next morning they advanced up to and over the three rocky teeth which connect the snow arête with the great cliff. This seems to overhang in an absolutely hopeless manner. The pinnacles do not actually abut against the foot of this great rock-bulge, as appears to be the case from Zermatt, but they lead to a very steep portion of the Zmutt Arête round the corner to the right.

After passing the pinnacles, the first party found it necessary to avoid this steep section by climbing an interesting couloir on the left, from whence it was soon possible to work back to the right to the main ridge. This was followed for some distance until the climbers were forced away to the right upon the great north-westerly precipice. Ultimately they were able to regain the arête and finish up it to the summit, joining *en route* the way up from the Italian side by Carrel's Ledge.

One of the earlier parties who followed this route under exceptionally good conditions prophesied that the Zmutt Arête would become a favourite way up the Matterhorn. The prophecy has not been realised. At many places there is an abundance of loose rock, which is only held firm by the normal icy nature of the northern face; and even if this is safe the difficult rocks are apt to be covered with *verglas*.



Abraham

THE TOP OF THE MATTERHORN

I once descended the upper part of the Zmutt Arête, in order to learn something of its nature and to meet some friends who were ascending by that route. My first question to the leading guide, as his head appeared over a steep pitch, where one's eye seemed to see nothing between the splintered foreground and the Zmutt Glacier about 5000 feet directly below, was, "What's it like?" "*Verdammte dumtheit!*" came the prompt reply; and perhaps this somewhat terse mode of expression may be pardoned, because it appropriately sums up what an average ascent of the Zmutt Ridge means.

The other way up the Matterhorn lies on the opposite or south-east side of the mountain, and it can be seen to advantage from Zermatt.

Mr. Mummery was responsible for the discovery of this course by the Furggen Ridge on 19th July 1880; his favourite guide, Alexander Burgener, and Venetz assisted him in the actual undertaking. Subsequent ascents have shown that they failed to find the best way up the lower section. They met with serious difficulty in reaching the main ridge, on account of their attempting to make a "short cut" from the Furggen Glacier.

Direct from the Furggrat, the ascent, as far as the final overhanging buttress, is scarcely more difficult than that by the ordinary Zermatt Ridge; the bulk of the course lies on the eastern face. The upper bastion may safely be considered inaccessible by ordinary methods. With one exception, every party to attack the Furggen Ridge has been compelled to make the dangerous traverse below this, and straight across the eastern face to the top of the well-known Shoulder on the Zermatt Ridge.

The first ascent was made in indifferent weather, and this passage proved risky on account of the falling matter which was detached from the summit rocks by a high wind. Even in good weather this danger of flying fragments is aggressively present, and the difficulty of the rocks compels the party to be "under fire" for a considerable time.

A few years ago that skilful Italian mountaineer, Signor Guido Rey, managed to force a way directly up the inaccessible final section; but arrangements had been previously

made for a supply of ropes from above, and he was assisted considerably by this means.

Almost all mountaineers possess memories of some special mountain on which they have encountered bad luck or met with extraordinary adventures. Personally I am rather rich in this respect, for the Aiguille de Grépon at Chamonix and the Matterhorn have both at various times proved my *bête noire*. A few of my experiences on the "noblest of Alpine giants, the King of Zermatt," may perhaps help beginners to realise what mountaineering under adverse conditions means.

I had had what might be called a nodding acquaintance with the Matterhorn for many years, but it was in the October of 1897 that a closer introduction was vouchsafed me to its vast, snow-draped cliffs and shattered ridges. A party of three of us had been disporting ourselves on the less important peaks round Zermatt, cherishing meanwhile a hope that fine weather would clear the recently fallen snow off the Matterhorn. Being so late in the year, the sun had lost most of its power, and to think of making the ascent seemed a forlorn hope. Nevertheless, the village *coiffeuse*, of pleasant memory and deft touch, had cheered us with the news that, even in the mid-winter of the previous year, some well-known mountaineers had managed to reach the summit under comparatively perfect conditions; but she tempered our enthusiasm by exhibiting some gruesome relics of her brother's fatal accident on the south-western ridge.

However, the weather showed signs of breaking, and early one morning we awoke to a thick fog almost of the consistency of a "London ordinary," which by 6 a.m. had developed to the thickness of a drizzle. The wind was easterly, and the outlook resembled that frequently met with in English mountain districts, which signifies beautiful weather up aloft with damp conditions in the valleys. A steadily falling barometer also presaged the advance of cyclonic tendencies, so we decided to take our last chance of a visit of exploration to the crags on the eastern face of the Matterhorn; of course, we had not the slightest intention of attempting the actual ascent. Thus no guides were required, and about 7 a.m. we set off determined to have at least a good day's

tramp, but not without warning our genial hostess not to expect us back until we arrived.

It was a chill "misty moisty" morning, and as we walked up the valley the density of the atmosphere blotted out everything except the near foreground, even the harsh reverberations of the adjacent cow-bells were softened by the natural "damper." There was a keener chilliness in the air as we mounted up through the dripping pine woods, and a short distance above the village of Zum See ice began to glisten on the surrounding vegetation. A thousand feet higher the mist grew slightly thinner and we passed upward into a fairyland of beauty. The great pines loomed through the lightening gloom like gigantic skeletons clad in a ghostly robe of delicate frost-work, with fragile icicles pendent from every twig. The weaker branches bent down under the weight of their beautiful burden and seemed to bewrap the comparatively bare trunks in plumes as of the finest ermine. Our damp clothing soon changed its texture; it grew stiff and uncomfortable, and we assumed the appearance as well as the awkward carriage of the Polar bear. The oppressive silence seemed "uncanny" after the noisy drippings from the trees lower down; the only sound to break the stillness was the peculiar crystalline crunch of our feet amongst the frosty spiculæ on the slippery path.

When we emerged above the pines and approached the Schwarz See, the sun began to pierce the disappearing fog, and the brightness of the glare made the eyes painful. Little remained of the beautiful frost-work to decorate the foreground, and as we strode out on to the platform near the hotel the warm rays of the sun quickly dispelled our Arctic appearance, and our damp clothes dried rapidly. But these personal details did not interest us much at the time; the beauty of the upper world was irresistibly supreme—it called forth exclamations of wonder and surprise. A sea of mist filled the valleys, the glistening, snow-clad monarchs of the Pennine Alps thrust their hoary heads above the clouds, whilst over all stretched the deep blue, cloudless, Alpine sky.

It would be unwise to attempt to describe the scene in detail; suffice it to say, that the object of our search, the Matterhorn, towered magnificently into the heavens, a light

fleecy cloud lazily floating around the upper ridges and thus accentuating the shattered nature of their crests.

Recently fallen snow was encountered as we progressed along the Hörnli Ridge, but it was frozen hard on the shady side of the mountain, and below the Matterhorn Hut we had cause to use the rope and to cut several steps up a steep, icy slope.

The temporary residence of those who essay the ascent of the peak looked uncomfortable; the floor was an icy slab and a light powdery snow covered all the interior. During the season this tiny hut is one of the most crowded places in the Alps. The yarns told of its insect population, the fauna of the Alpine bed, are often amusing as well as pathetic, for climbers have been known to give up the ascent on account of the gleeful welcome they have received from these voracious representatives of the genus *pulex*. A certain famous traveller has said that the chamois is a myth; that he never saw one, and it must be the scientific name for these active little mountaineering insects which haunt the huts and defy the most expert hunters. Arguments sometimes arise as to what becomes of these creatures during the severe winter weather; some authorities think that they hibernate in the warmest corners of the building, and only emerge when it is well worth while. Others say that "the fleas go down to the valley with the last party in the autumn," so, though the blankets and beds looked singularly harmless and innocent, we kept at a respectful distance. During the cooking of a little soup over the stove, we used every precaution to avoid becoming unwilling carriers of the live stock valleywards. Despite our aloofness subsequent events led us to favour the theory of the latter authority. Those who visit the Matterhorn Hut should take "Keating" and use it liberally.

The actual climbing that we undertook during that first autumn does not linger very favourably in my memory. We spent several hours exploring the eastern face below the old disused cabane high up on the north-eastern ridge. So fascinated did we become with the icy rocks and steep slopes, that we altogether forgot the flight of time and failed to notice that the sea of mist had meanwhile been drawing

steadily upward from the valley. Drops of falling moisture at last made us look around. Great, angry-looking clouds were advancing, like an army in line of battle over the Furggjoch; the blue sky had almost disappeared; that which remained was of a sickly hue.

The order for retreat was at once given, and, to cut a long story short, I may say that we had the greatest difficulty in finding a way down the cliffs to the hut. This was enwrapped in a thick, wet mist, and sleety rain fell steadily. It had grown quite dark when we reached the great, deserted hotel near the Schwarz See, and our worst adventures of the day were yet to come.

We had a folding lantern and plenty of matches, but somebody, or perhaps nobody, had forgotten the candle; at any rate, we were devoid of this necessity. The proper track was missed near the beginning of the pine-woods, and ere long we found ourselves following a narrow, twisting path amongst the dripping vegetation. This vanished eventually on some pasture land; we seemed to be hopelessly lost. The darkness was now so intense that it was impossible to see each other; in fact, when the leader stopped, his companions came cannoning into him. The result was a collapse somewhat like the old domino game of our childhood, and several times we sprawled on the ground.

After crossing some steep fields and tumbling over innumerable fences, we came to a high, grass-covered bank that served somewhat the same purpose as a stone-wall in England. We all clambered to the top, and my friends descended on the further side safely, whilst, acting on their advice, I jumped down into the darkness. Instantaneously there seemed to be a tremendous earthquake. I seemed to be flung into mid-air, and finally alight all in a heap amongst the feet of one of my companions; the other was busily engaged rolling down a steep bank into some brushwood. He had stumbled over the back of a sleeping cow, and my gigantic upheaval was the result of alighting on the back of another bovine quadruped. Fortunately Alpine cows are mild-tempered creatures, probably they were more surprised and scared than we were.

By the waste of many matches, which, despite our preventive efforts were becoming damp, we all foregathered

beneath the portal of an empty chalet, which our noses told us was the home of the "four-legged earthquakes." None of us was much the worse for the accident, but the long strain on the powers of endurance was beginning to tell, and we discussed the question of staying for the night in the noisome chalet.

However, it seemed preferable to stumble and creep round the adjoining pastures or mountain-side, where at least we had the benefit of fresh air, rather than stand and shiver in such quarters. When, an hour or two later, we found ourselves unconsciously back at the very same point, our long-suffering patience was sorely tried. Though we imagined that we had been traversing straight across the slopes in the supposed direction of Zum See, we had somehow or other described a rough circle to rediscover our spent matches on the floor of the chalet. However, this proved to be almost the end of our troubles; we used the last matches in steering a westerly course by the compass, neglecting all paths, and, fully an hour later, a tiny light was visible straight ahead, and apparently quite close. Almost at the same moment we stumbled over the fence guarding the path, which we had followed in the early morning. It was the final shake-up, for we soon groped our way along the rails to Zum See. There we received the kindest treatment, and sympathy in the form of huge bowls of goats' milk and black bread, which were more welcome than the epicurean delights of the most elaborate menu ever invented. Then, after the loan of a lantern, we walked back to Zermatt more than satisfied with our day's outing. Such experiences are scarcely unalloyed pleasure at the time; but they are remembered and recalled in far-distant years, when great climbs undertaken without a hitch in perfect weather are merged in the dim happenings of an uneventful past.

Next morning the valley was covered with a deep mantle of snow; the Alps had donned their winter garb, so we bade them adieu and went home to a sunny Indian summer in England.

In the June of 1898 I was again in Zermatt, and it fell to my good fortune to make the first ascent of the Matterhorn for that year, though the undertaking was not included in my

previously-arranged programme. There is a sort of annual competition in Zermatt for this honour. Our party had just returned from one of the expeditions, described in the preceding chapter, to find excitement rife in the village, for the German climber, also referred to therein, had set off that day to climb the Matterhorn, spending the night *en route* at the Schwarz See Hotel.

It seemed that his guides hailed from a distant district, and the Zermatt professionals were jealous of strangers who might beat them up their own peak. The two famous guides, Josef and Adolf Schaller, appeared specially perturbed, for they had "bagged" the first ascent for several seasons in succession. When they explained the case to me, and suggested my joining them in an attempt to hold their record inviolate for another year, I was delighted and accepted without demur. My German friend had a day's start of us, but, though the weather promised well, the peak was in very bad condition and the Schallers joyfully prophesied his failure.

As a result of this interesting conversation, we left Zermatt after breakfast next morning, each somewhat heavily laden, but hopeful. Strolling lazily up the lower slopes and wisely resisting the allurements of the bierhalles and tea gardens, which were passed *en route*, we arrived in due course at the Schwarz See Hotel. There we made a prolonged halt, and learnt incidentally that the other party had left about midnight. The habitués of the hotel did not speak very hopefully of their attempt; they also made jokes at our expense, and even hinted that no sane person would attempt the Matterhorn under such bad conditions.

We were fully conscious of the difficulties to be overcome; and, to obviate as far as possible the danger of being carried down in an avalanche, Josef loaded me with 150 feet of spare rope and some iron *pitons* to fix in case of necessity. The others augmented their loads with firewood and extra provisions; the latter I noticed had a strong liquid tendency.

Leaving the last signs of civilisation we made our way along the Hörnli Ridge with the great peak right in front. Numerous halts were made whilst Adolf screwed himself and my small pocket telescope into awkward and amusing attitudes, with a view to inspecting the route and discovering the where-

abouts of our predecessors. His report regarding the state of the rocks was discouraging, but his failure to discern any footsteps on the snow-covered Shoulder had the opposite effect.

After weary flounderings through soft snow we reached the hut (10,700 feet) and found it quite blocked with ice and snow. A considerable amount of hacking and cutting had to be done with the ice-axes before we could enter its chill and damp interior.

We were truly thankful, however, to find the stove-pipe comparatively free from snow, and our wood-fire soon began to thaw everything. During these melting moments some agility was needed to dodge the falling icicles and snow, which bespattered us unmercifully from the ceiling. The soft, powdery snow had blown in and adorned the interior of the hut; but that was neither here nor there, it was everywhere; and even the beds and sleeping blankets needed clearing and shaking. However, these discomforts are but some of the pleasures of mountaineering, and some hot, highly flavoured soup acted as a splendid counter-irritant. When we were safely tucked up on the straw bed, and the room began to fill with dense steam, as our warm bodies dried the wet blankets, we felt perfectly happy. It needs training to sleep well under such conditions. However, I was so fortunate in this respect that I was not aware of the return of my German friend until Josef awoke me about midnight. He told me that they had passed the hut without calling or taking any notice of our light; my companions deduced from this that they had failed in their attempt; otherwise, they would have been glad to inform us that the first ascent of the Matterhorn for 1898 had been accomplished. We learnt next day that the deduction was sound; want of training had told its tale; they had chosen an unsuitable route up the great eastern face and become involved in difficulties, which eventually exhausted the Herr before the Shoulder had been climbed.

After partaking of a light breakfast we roped together in the hut. A few minutes after midnight Adolf led us off over the first snow in high spirits, for the weather then seemed promising and we were even able to dispense with the lantern, because the moon was rising slowly from behind the highest

peak of Monte Rosa on our left. The view was magnificent. But more practical matters soon occupied our full attention as Adolf led the way at a furious pace up the first rocks and along the ledge to the left of the main ridge.

After crossing some ice-covered slabs we soon reached the side of the Great Stone Couloir, where I noticed that we diverged from the tracks of our predecessors.

From this point all was steep, hard snow, and advancing on to the east face by kicking steps in the icy surface, we made good progress as far as the Old Cabane. This has now fallen into ruins, and we could scarcely find room in its snow-filled recesses to deposit a reserve food supply to await our return. For some time we had been casting longing looks at the rucksack which contained the eatables, so, on the narrow platform upon which the hut was built, we partook of early breakfast by moonlight. It was not a cheerful meal, for we listened with some misgivings to the high wind whistling round the upper ridges.

The fading of the stars on the eastern horizon reminded us of the value of time, so, after plunging up a snow couloir and across some steep ice-slopes, where holds for both hands and feet had to be cut with the ice-axe, we were compelled to take to the rocks of the main ridge. It was here that we had a foretaste of what Old Boreas had in store for us higher up. The wind was intensely cold and, as soon as possible, we sought comparative shelter by climbing more on the left or eastern face of the mountain. There we progressed more comfortably though less speedily, until the snowy Shoulder was reached.

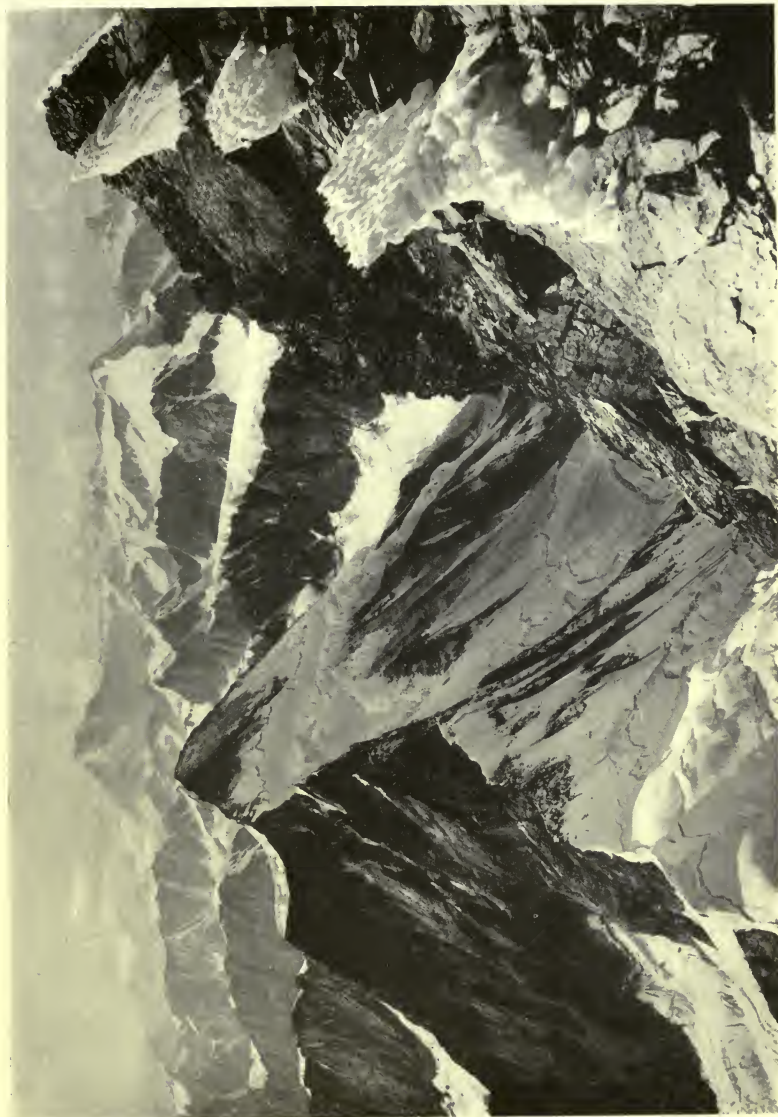
From here to the top it was necessary to climb more on the crest of the exposed ridge, and a lively time was obviously awaiting us. Consequently, in order to dispel the gloomy, uncertain looks of the guides, I suggested a third breakfast; and forthwith we made internal and external preparations for a severe battle with the wind, which howled and shrieked over the ridge only a few yards above us.

Every available piece of clothing was now brought into use and, with a derisive shout in the face of the blast, Adolf led the way on to the ridge. Meanwhile a brighter greyness in the east proclaimed that dawn had come, but no sun broke through

the gathering clouds to warm the snow-covered rocks or thaw our icy garments. Just after we gained the crest of the ridge a lull in the storm occurred, and a break in the scurrying vapour showed us our situation. We were astride a steep, narrow ridge of the knife-edge variety, which seemed to bend far over to the right, overhanging an apparently bottomless abyss filled with seething mist, and I knew that we were above the tremendous Zmutt precipice, which drops perpendicularly over three thousand feet to the glacier below. On our left the view was scarcely less impressive; but attention was turned to the summit which now towered clearly ahead and fully a thousand feet above us. A wandering ray of rosy sunlight tipped the highest point, and a long, golden streamer of wind-swept snow spread far away over the sky to leeward.

A cry from Josef disturbed our reverie, as a fierce, icy blast swept up from the depths and very nearly carried us all along with it. Movement was impossible for several seconds, but in the succeeding lull we clambered hurriedly upwards, and for some time progress could only be made during these comparatively quiet intervals. Moving carefully one at a time we gained the top of the Shoulder, and experienced some exciting moments whilst traversing the wind-swept crest of the sharp ridge which terminated at the foot of the final peak. It was a welcome sight to see, here and there, the fixed ropes peeping through the snow which masked the huge, upper slabs. The presence of these artificial aids seemed to put new life into the whole party; and Adolf led up the rope-hung rocks at a pace only permissible with the intention of keeping up the natural heat.

It was just near this point, five hundred feet below the top, that the full force of the blast was felt. The weather was terrific; not a word could be heard between us; the roar of the gale was overpowering; great, dense clouds of snow were being torn off the north face, hurled up the awesome cliff, and then carried far out over the summit. At times my companions at either end of the rope were invisible. We were very soon literally caked in ice, and the finer particles of snow seemed to penetrate everywhere. My pockets were soon full, and tiny streams of melted snow began a cold trickle down my back and chest. About a hundred feet higher, progress was stopped



Abraham

A VIEW FROM THE HIGHEST POINT OF THE MATTERHORN

MONT BLANC, NEARLY 80 MILES AWAY, IS SEEN DIMLY ON THE LEFT, WITH THE GRAND COMBIN AND THE AROLLA MOUNTAINS FURTHER TO THE RIGHT. THE NEARER PEAK IS THE DENT D'HÉRENS

by the giving way of a fixed rope, and the expressive look on our leader's face spoke louder than words or even the storm. Hand- and foot-holds were entirely at a discount, so to reach a higher ledge Adolf mounted on my back and finally stood on my shoulders. After what seemed an interminable grind of his ponderous "hob-nailers" into my tender scapulæ he managed to reach a hand-hold and swing himself up into a small square recess. The expression of his smiling face, beaming through the driving snow like a red signal-lamp of warning, told us that he was safe, and with practical help from the rope we quickly gained his level. Serious difficulties soon vanished after this; and a hurried rush up the final snow slope brought us at last, about 7 a.m., as near the snow-corniced summit as discretion would allow.

Any chance of a view was hopeless. In such a *tourmente* it was quite impossible to open one's eyes sufficiently to see further than the near foreground, even if the mist had permitted. I only remember a delicate, feather-like ridge of snow forming the outline of the summit; and then we were rapidly speeding back down the snow to the rocks.

We learnt later that just at that moment the top of the Matterhorn was visible from Zermatt. Our movements had been watched as closely as possible through the big telescope, by those who could shake off the chains of gentle Morpheus as early as 7 a.m. They told us how surprised they were to see us travelling so rapidly on such apparently dangerous ground; but the difference between the top of the Matterhorn in such a fearful blizzard and the top of the Matterhorn seen through the Zermatt telescope in warm sunshine is obvious.

Down and down we went, sliding over the icy ropes and crags. On the Shoulder great care was now needed, as the snow had become very soft and liable to give way under undue pressure. By hanging on to the sharp snow ridge with our left arms, and working along and downwards on the right-hand side of the ridge, we eventually reached the welcome shelter of warmer rocks; truly it was the shadow of a great rock in a weary land, so we rested for some hurried refreshment. The thick, woollen helmets which covered our heads were a mass of hard, frozen snow, and our faces were little better. To open one's mouth was a painful operation,

and the sensation, as circulation was restored in my half-frozen fingers, was like having each digit slit up with a blunt pen-knife. The fine spiculæ of snow had found a way into most unexpected quarters, and discomfort was rife as the melting operations progressed. It was impossible to smile in an icy mask, but it was extremely comical to watch Adolf hugging the wine-gourd to his bosom like a baby, in hopes that some stray warmth would thaw its solid-frozen contents.

The startling swish of a newly forming avalanche on our right, and its augmented thunderings far beneath as it crashed down on to the glacier, reminded us of our position, and ere long we were off again down the loosening snow and steep rocks. Careful movements were necessary in crossing some of the shelving slopes of avalanchy snow, but the spare rope and *pitons* were never requisitioned.

The somewhat dangerous conditions caused us to vary the route, and descend near the Old Cabane by an easy rock ridge. There we picked up and safely stowed away our left luggage, and some friends were awaiting us at the lower hut with further luxuries. Late that evening we raced down to Zermatt, almost revelling in the warm rain which came with the southerly gale.

Other visits have been paid by us to the top of the Matterhorn, and, though one of these was made without guides, all seem tame and almost commonplace compared with the first ascent of 1898. Some people may say that the climb was unjustifiably risky. Ah, well! perhaps it was. Let us pervert the well-known aphorism and say, "There's no fool like a young fool." All such are referred to the advice given in Chapter IX.

CHAPTER XXI

THE SWISS ALPS — THE BERNESE OBERLAND — GRINDELWALD—THE JUNGFRAU, MÖNCH, AND SOME OF THEIR NEIGHBOURS

“These peaks are nearer heaven than earth below,
'Tis the blue floor of heaven that they upbear;
And, like some old and wildly rugged stair,
They lift to the land where all is fair,
The land of which I dream.”—BONAR

THE comparative neglect of the Oberland Massif is a mystery of modern mountaineering. It is quite a common thing to meet men who know the rest of the Alps intimately, yet they have never properly seen that gigantic rock wedge, the Schreckhorn, or the tapering peak of the Eiger as it appears from the slopes of the Wetterhorn. Some of the neighbouring summits they may have seen from afar off, but great distance lends neither enchantment nor true proportion to the view.

There are several reasons for this state of affairs, but the two principal ones may be mentioned. This is an age of rock-climbers, and the idea has got abroad that the Oberland peaks are more favourable to the operation of the snow and ice specialist, who is somewhat in the minority at present. With one or two exceptions, the rocks on the popular routes are certainly too easy to be interesting. Nevertheless, anyone who has gazed on the vast crags of the Schreckhorn will realise that the remedy is close at hand. Some of the recently discovered ways up the “Terror Peak” are as exciting and difficult as mortal man, especially the married variety, has any just reason to desire.

But probably the more potent cause of the desertion lies in what has been called the over-civilisation of the district.

Grindelwald with all its multifarious items of up-to-date city life, has been aptly called Brighton-by-the-Mountains. The peace, which used to be the glory of Grindelwald, has disappeared; the sound and smell of railways are too much in the air.

But still let us not forget that

“These peaks are nearer heaven than earth below”;

and the mountaineer should rejoice in the fact that a few hours will take him clear of the more aggressive signs of everyday life into his beloved mountain solitudes. 'Midst the crags of the Wetterhorn he need not fear at every corner to spoil a love-making scene, even though at his hotel he may incur the displeasure of match-making matrons, because he prefers a Jungfrau of the mountain variety.

There is no denying the fact that at Grindelwald railways are rather overdone. The Little Scheidegg grows more and more like Clapham Junction, and on this side of the range the old mountaineer must look with sorrow and sadness. It is almost too much to hope that the worst is past, but there are signs of exhaustion on the part of the railway magnates. Progress in the long attempted railway up the Jungfrau has practically come to a standstill. Funds are exhausted, and the undertaking can be strongly recommended to all investors who are anxious to dispose of their capital.

But after all, the Eiger-Jungfrau Bahn is not such an eyesore as some others. The old “Ogre” seems to have taken compassion on the mightiest efforts of puny man. He has swallowed up and hidden in his rocky vitals the desecrating influences of the “iron way.” Though it is certainly true that foul eruptions break out here and there on his huge lower extremities, he still complacently rears his noble, ermine-capped head far above these minor ailments. His feet stand in the mire, but the peace of the lonely hills holds sway in the upper regions; it is yet true that

“Dull dead silence reigns,
Ever and ever in the unsyllabled air.”

The same truth applies to the neighbouring peaks; the thoughts



Abraham

THE WETTERHORN AND GRINDELWALD FROM BELOW THE LITTLE
SCHEIDEGG

THE GREAT COULOIR IS VISIBLE SLOPING UP TO THE DEPRESSION ON THE RIGHT OF THE HIGHEST
POINT. BELOW, AND ON THE LEFT, THE GREAT SCHEIDEGG PASS CAN BE SEEN

of the imperishable majesty of the untainted heights must make the climber reconcile himself to the turmoil of the lower slopes.

After all, Grindelwald is a most excellent base of operations, and a comparatively short time need be spent in the valley. The quickest way of getting there from London is by the Folkestone-Boulogne service, *via* Basle and Bern.

The sensation of a first sight of the Alps, after a stuffy night journey in a crowded Swiss express, is one of the pleasures of the mountaineer. As the train rumbles out of the damp, darksome depths of the Olten tunnel he sees across the rolling Alpine uplands the greatest Oberland monarchs bathed in the roseate hues of early dawn. Instantly all recollection of the stormy Channel passage, and the ensuing discomforts, vanish from his mind like the morning mists from the far-distant snows of the Jungfrau.

Few of the great Swiss ranges can be seen to such glorious advantage from as great a distance at this low level, and this is probably the principal reason why the Bernese Alps were explored and climbed when other higher regions, such as the more imposing Central Pennines, were almost unknown and consequently unvisited. The Jungfrau, for all its fearsome reputation for inaccessibility, was climbed in 1811, and the Finsteraarhorn during the next year, whilst the Matterhorn and its neighbour were scarcely explored before 1860. Despite its ease of approach, even the second highest peak in the Alps, Monte Rosa, remained unclimbed until 1855.

From Olten to Grindelwald must involve a railway journey of nearly 100 miles, yet though the train services are most inconveniently arranged, the experience will scarcely prove monotonous. The enthusiast may chafe at the hour's respite, or even the one of longer duration, which is allowed for the change of trains at Bern. He looks upon this as so much wasted time; but the old city with its quaint bear-pit is worth seeing, even the dromaniac will find the view of his beloved peaks from "the terrace" some recompense for the delay.

Then, during the rest of the journey, the way is enlivened by attempts to distinguish the great peaks as the train twists and turns around and amongst the intricate slopes of the

foot-hills. Fashionable Interlaken, with its almost pre-historic railway-station arrangements, is at last left behind, and the little "narrow-gauge" worms its way along the bed of the narrow valley, with huge, pine-clad buttresses on either hand.

At Zwei Lüttschinen the gorge opens out and then separates into two distinct valleys. That on the right runs up to Lauterbrunnen and Mürren, whilst the less interesting-looking hollow on the left gives access finally to the village of Grindelwald, reposing somewhat stragglingly below the most gigantic rock-wall in the Alps.

The scene at the Grindelwald terminus is unique. Crowds of importunate hotel porters are let loose amongst the travellers, whom they seize upon like some wild creatures on their prey. Intimate knowledge of the technicalities of the sport are here of no avail to the climber, if unprepared for the "fray" he may become lost at the outset. He may find himself at some unknown hotel, whilst various articles of his luggage may be appropriated by the "Bear," the "Eiger," the "Adler," or other importunate creatures. It is a temper-trying business collecting one's self and luggage; visitors to Grindelwald should previously make their selection of a hotel, and they must not waver in their choice on arrival outside the terminus.

The village of Grindelwald calls for no special mention; it seems to be composed of shops and hotels, mostly situated in the usual, single main street, which is inches thick in either white dust or sticky mud. Large numbers of the natives are engaged in pastoral pursuits, and the grassy slopes, for the most part in the direction of the Little Scheidegg and the northern side of the valley, are thickly decorated with what in England we should call flourishing farmsteads.

There is also a vast array of guides, hotel employees, and others, who cater solely for the annually increasing number of tourists. Practically all the articles of everyday life that are obtainable in London can be bought in Grindelwald. It is an excellent place to buy most of the articles of mountaineering equipment, ropes excepted.

The mountaineer who visits the famous centre should

be warned against the general talk which goes on casually in the large hotels regarding the surrounding mountains. There is a great tendency for some kinds of climbers to talk in public of this mountain or that expedition as simple or easy. The Jungfrau is a famous sufferer in this respect, but the listener must not be misled by the opinions of these unathletic-looking and almost flabby devotees of the sport; many of them simply follow mountaineering because it is fashionable to do so. Most probably they have been escorted up the great peak by a bevy of guides, and the man of moderate experience may get the idea that he can go alone or with companions possessed of mountaineering knowledge only equal to his own.

During my last visit to Grindelwald a young climber attempted to realise this theory by following the widely marked track in the snow. Three days afterwards his lifeless body was recovered from a crevasse on the Jungfraufrn. Other similar and more terrible accidents have happened, and neither the Jungfrau nor its high immediate neighbours should be looked on as easy or simple peaks. Even in fine weather there is at least the difficulty of locating the crevasses, and a mistake may prove extremely dangerous. The young climber should learn to neglect the opinions of that special kind of mountain traveller, who, in the words of the Lancashire boatman, "fears nowt because he knows nowt."

Unlike Zermatt, the vicinity of Grindelwald is not supplied with minor heights suitable for introductory scrambles. Whilst the southerly retaining wall of the valley is incomparably grand, the northerly side is dull and uninteresting, as far as the climber is concerned. The Faulhorn dominates the latter group, and it is the most popular of the longer walks in the neighbourhood; a well-marked mule-track leads all the way to the hotel-crowned summit. It is a hot, dry tramp, and those who accomplish it will generally agree that there is a certain element of truth in Dr. Johnson's opinion, that a fine mountain view is improved by having a good inn in the foreground. The prospect is certainly magnificent and extensive; but the climber will probably be annoyed by the way in which the crests of the intervening Simelihorn and Rötihorn spoil the grandeur of the greater Grindelwald peaks.

Those who can dispense with the advantages pointed out by Dr. Johnson should leave the Faulhorn track about half-way between the Waldspitze Inn and the summit, and strike up the slopes leading to the left up the Rötihorn. Some amusing rock scrambling, though rather of the loose variety, can be found *en route*, but the outlook from the southerly side of the summit is as magnificent as it is topographically interesting.

All the great Oberland giants tower in front, a phalanx of icy monsters in wide array from east to west; even the eye of a trained mountaineer takes several minutes to grasp the vastness of the range. The tiny châteaux, like almost invisible specks on the Scheidegg pastures, assist somewhat in gauging the scale of proportions.

The long, broken-up ridge of the Wellhorn on the left leads the eye along to the majestic precipice of the Wetterhorn, down whose gully-seamed front, some thousands of feet high, great avalanches fall almost daily; at this distance they bear a resemblance to those long, white, ribbon-like waterfalls of the Norwegian fiords. Still, I have heard an English-trained rock-climber, just after his arrival at Grindelwald, suggest an immediate attack on one of those terrible, unclimbed rifts. Though gullies form the best and most natural way up most British precipices, they are to be almost invariably avoided in the Alps. The front of the Wetterhorn is an education in this respect.

The great opening in the cliffs through which creeps the Upper Grindelwald Glacier, rises steeply on its westerly side to the sloping crest of the Mettenberg. This, one of the most imposing cliffs when seen from the valley, takes on its proper proportion from our present standpoint. It is simply an outlying buttress of the graceful Schreckhorn, that most fascinating of all the Oberland heights. The Lauteraarhorn is really part of the same mass, but somewhat more remote, and its upper ridge peeps humbly from behind its more aggressive-looking neighbour.

The sharp wedge-shaped top of the Finsteraarhorn, which occupies the point of honour as regards height, forms a suitable background for the great Eismeer of the Lower Grindelwald Glacier, with the snow-corniced walls of the Fiescherhorn group nearer at hand. All these are dwarfed by the shapely Mittellegi

ridge of the Eiger, which is, on account of its nearer proximity, the most impressive portion of the wide panorama. Farther to the right the more demure-looking Mönch lifts his icy summit in front of the complicated *massif* of the Jungfrau, which, though always beautiful, now loses considerably in grandeur by contrast with her adjacent companions. Still farther in a south-westerly direction a billowy sea of mountains rises round and beyond the Lauterbrunnen valley. The most prominent of these are the Breithorn, Blumlisalp, and the summits above the Lötschenthal.

The height of the Rötihorn does not allow us to realise the vastness of the great glacier regions on the other side of the former central chain. There lies the Ewig Schnee Feld, or the Field of Everlasting Snow—an appropriate name; and all the great Oberland peaks which cluster in the vicinity possess equally expressive titles—the Maiden, the Monk, the Ogre, and the Storm Peak are familiar to many; whilst the peak of the Black Eagle and that of the Light Eagle, in close proximity to the Terror Peak, are not so frequently mentioned.

Our modern names in other ranges, such as Mounts Thompson, Cook, M'Kenzie, Jones, and even Robinson, sound, at least, commonplace by comparison. It has been said, "give a dog a bad name and hang him." This principle, for obvious reasons, cannot be applied to mountains; but I would suggest that the donors of such names stamp themselves as undeniably prosaic persons.

In turning to the ascent of some of the principal Oberland heights, it should be mentioned that most of the great peaks involve long expeditions, and some training preparation is usually advisable before they are undertaken. After the day's walk up the Faulhorn or Rötihorn, a scramble to the top of the Klein Schreckhorn will help to put the lungs and muscles into working order. Then, if the weather is perfect, the fairly experienced mountaineer with first-class guides could undertake what is one of the finest mountain journeys on the Alps. This is the traverse across the Jungfrau from the Lauterbrunnen side to the Concordia Hut on the southerly slopes of the range. The return to Grindelwald could be made by way of the Finsteraarhorn or the Fiescherhorn. With such a programme in view the luggage should consist of the barest necessities

only. Blessed is the climber who can leave his camera behind on such occasions.

There are many ways of climbing mountains nowadays, but to start by going downhill in a railway train seems at least irregular. However, this is the best way of reaching Lauterbrunnen, of waterfall fame. The Staubbach or "dust stream" has a fall of about 900 feet, and the water frequently reaches the bottom in the form of spray. Poets galore have sung of its wonders, and have compared the fall amongst other things to a bird of paradise, an undulating lace veil, and a shower of rockets. Indeed it has been as badly treated as a certain famous English waterfall, which Southey has described in his "roaring and pouring" rhyming. However, the views of the mass of the Jungfrau and its neighbours filling in the southerly end of the valley will interest the climber more. It is a good plan to partake of a good lunch here,—it may be the last ordinary meal for several days; so, as the Cumbrians say, it has to go a long way. Then ensues an hour's drive up the astonishingly level floor of the valley to Stechelberg, and at this little hamlet the road ceases and a bridle-track runs up to the base of the mountains. Thence there is a rise of about 6,000 feet to the Roththal Hut, where the night is usually passed. The way thither turns off to the left along a narrow footpath which zigzags up the steep pastures, and eventually plunges into the welcome shade of the forest that seems to hang on the mountain-side. At several places the fragile path skirts the edge of a precipice, where it has been engineered by driving stakes horizontally into rocky crevices, and covering their nakedness by a sparse covering of earth and brushwood.

Rather more than an hour's walk above the valley the open pastures of the Stufenstein Alp are welcome, because some excellent milk is usually obtainable from a genial and obliging cowherd. These abstract qualities and the supply of milk depend largely on whether or not the party buy their firewood at this place, which, it should be mentioned, is the usual course. The extra loads of fuel for use at the hut make the ensuing steep trudge up the pastures both hot and laborious; but ere long the track skirts, at an easier angle, the big moraine of the Roththal Glacier.

A steep cliff suddenly stops progress, but a red arrow

painted on a slab at its base indicates the route upwards. The cliff is weathered into small terraces, which provide a sort of natural staircase up to grassy slopes studded with bright blue gentians and clusters of edelweiss.

The ridge-like summit of the lateral moraine is soon gained; and, after a divergence to the left over some stony ground, a simple scramble up broken rocks leads to the hut. The sunsets as seen from here are famous; and, after a simple meal, it is well worth the day's journey to sit on the natural rock-veranda and watch that peculiar glow of departing day which augurs good weather for the morrow. Right below lies the Roththal Glacier reposing in the gathering gloom, whilst beyond rise the steep, grey snow slopes of the Ebnefluh; and behind, the great rocks of the Jungfrau catch faint reflections of the Alpine afterglow.

Then to bed amidst the straw and damp blankets, etc.; and let us hope the climber knows nothing until the usual match-striking performances by the guides proclaim that the early morning hours have come. It is necessary to make an early start, say about 2.30 a.m., and if Nature lights the way by the rays of an ample moon, much time and probably some questionable language will be saved. Some loose stones and probably a few, small, snow patches lead to the foot of the rocks. A winding course up these enables the long, low ridge, which is so conspicuously seen from the hut, to be gained, and this slants up to join a great buttress of the peak. This ridge possesses a capacious top, along which progress is rapid for some time. At one point a small cliff forces the party to the left, but above this place the ridge assumes its former amiable qualities for some distance until it steepens suddenly.

An expert party may come thus far unroped, but here the increasing difficulties require more circumspection and mutual support. Ere long a vertical wall in front necessitates a traverse to the left into a couloir provided with a fixed rope. This artificial aid will scarcely be necessary under good conditions, but with ice on the rocks its presence is very comforting, not to mention, useful.

Having surmounted this, two other couloirs to the left, each ornamented with the same means of assistance, are

ascended. A moderately steep, rock face is soon encountered, and with the normal covering of thin ice-glazing its negotiation is often the worst part of this route up the Jungfrau. Interesting rock-climbing continues for fully an hour longer, until a short ice-slope leads to the snow of the Hochfirn. A gently sloping snow-field continues up to where some indefinite rocks peep through its surface, and in a short time the popular route which comes up on the south side of the Jungfrau is joined. A few minutes longer and the wide prospect south and east is disclosed to view.

Nevertheless, there is no doubt that the view from the top is rather disappointing; it is a curious feature of the Alps that many of the most famous peaks, which are glorious to look upon from below, do not reward those who climb them with a proportionately satisfactory prospect. Even in mountains Nature seems to weigh out her bounties with a just balance.

The great width of the Ewig Schnee Feld and the length of the Aletsch Glacier seem to throw all the peaks back to such a distance that they become badly grouped and undignified in form. The curve of beauty as exemplified in Nature would be looked for in the sublime sweep of the greatest of Alpine glaciers; but the shoulder of the Trugberg so obtrudes on the continuity as to jar on the artistic eye.

In the opposite direction one would expect to look sheer down into the Lauterbrunnen valley, with a wide outlook on lake and distant plain. The plain is there, distinctly plain; but the lakes possess neither individuality nor beauty of shape, and the anticipated "plunge" into the valley is spoiled by the Jungfrau's outstanding satellites, the Silberhorn and Schneehorn.

While the climber is engaged in realising these matters, and, what is more likely, gazing on the engrossing, icy slope of the Mönch and the jagged ridges of the Finsteraarhorn, the guides will probably divert his attention to some tiny black dots away below near the Jungfraujoche. They are human beings, and represent the usual "caravans" *en route* up the peak from Grindelwald. It is inadvisable to delay the traffic, and so the party may descend to the snowy saddle south of the summit known as the Roththal Sattel.



Abraham

THE JUNGFRAU FROM THE TOP OF THE MONCH

Under certain conditions it is necessary to cut steps in the fairly steep arête, and this part is the *bête noire* of the inexperienced mountain traveller. Some guides earn every franc of the tariff over and over again on this final stretch of the peak. It is often composed of hard, blue ice, and there is no exaggeration in saying that the steps are frequently made as big as an arm-chair. I once saw a stout tourist comfortably ensconced in one of these, and imploring the guides to take off the rope and "leave him alone to die." With commendable heroism they joined forces directly above him, and hoisted him bodily up to their level. This painful process was repeated at intervals until the summit was gained amidst riotous rejoicing. A few days later I came across the amateur sampling the various kinds of embrocation obtainable in Grindelwald, and the following Christmas he delighted his friends at home with a lecture on the "Pleasures of Mountaineering."

It is almost worth lingering on the Roththal Sattel to watch such performances; but the resting-place is rather open to the assault of cold breezes, so the climber will turn to the left and descend the snowy slopes above the bergschrund. This scarcely ever offers serious difficulty; parties have been known to lose their equilibrium some distance higher, and "shoot" it inadvertently. In any case it is frequently permissible to glissade below it down to the *névé* above the Jungfraufrn.

The tremendous north-east ridge of the peak on the left now looks as inaccessible as it really is. It has not yet been ascended throughout, though a year or two ago a young Englishman with expert Swiss guides succeeded in making the descent.

The way to the Concordia Hut soon bears to the right and leaves the Grindelwald track. Two hours or so later the party may have crossed the slushy snow-swamp to the Concordia Platz, and be strolling up the winding track to the well-known hut (9,415 feet). At the Concordia Inn, a few yards away, provisions are generally obtainable during the climbing season.

The enthusiast could spend several delightful days on the great peaks, which surround the Concordia Hut on practically

every side. He might also lengthen his visit to the neighbourhood by crossing the Lötschenlücke to Ried. To climbers this is the "capital" of the Lötschenthal, and altogether it is a charming spot. The Bietschhorn is the best climb thereabouts, whilst the Lauterbrunnen Breithorn, the Nesthorn, and the Schienhorn are all worth the attention of the man who is tempted to tarry in this healthy upland valley. The Aletschhorn (13,721 feet) may be attempted on the way back to the Concordia, but this is only suitable for experienced parties. A long day's tramp would be required to reach the Ober Aletsch Hut, whence on the second day the south-east arête could be ascended.

Resuming the return journey to Grindelwald by way of the Finsteraarhorn, it should be noted that a start ought to be made soon after midnight. Two hours' pleasant tramp up the gently sloping surface of the glacier leads to the Grünhornlücke whence the Walliser Fiescherfirn is quickly crossed.

Hereabouts the Finsteraarhorn is seen straight in front, silhouetted black and weird against the gathering paleness in the eastern sky. When dawn comes the south-eastern ridge is seen to rise forbiddingly on the right.

This was usually attacked from the Grimsel and the Oberaarjoch Hut on the other side of the peak; except under perfect conditions of snow and rocks, it is a decidedly difficult course. Now that the new hut has been completed on the south side of the mountain, the route will probably become more popular. Only the upper portion of the south-east ridge is generally climbed. The crest of the arête can be reached from either the south-west or the east; the most trying section is near the summit.

The eastern arête is still more difficult; vague reports have been heard of its conquest, but Mr. W. A. B. Coolidge, whose minute topographical knowledge of the neighbourhood is unequalled, states that "it has probably never yet been climbed by anyone."

The ordinary means of approach from the Concordia Hut lie up to the Hugisattel, and thence by the north-west ridge to the summit. This *sattel* is safely reached from the Fiescherfirn by passing below the conspicuous south-westerly

ridge, which appears to tower right up to the summit. On the right of this, easy snow-slopes give access, some distance higher, to the well-known "breakfast place" on the breast of the ridge. Thence the route bears to the left from the south-west ridge, and, after rising above the broken part of the glacier, easy snow-slopes lead up to the Hugi-sattel. Thence pleasant rock-climbing is met with on the final arête. There is no serious difficulty under good conditions; but one fine gendarme, composed of red ochre-coloured rocks, is most easily negotiated by a turning movement on the right-hand side. A few minutes longer and the climber stands on the top of the Finsteraarhorn (14,026 feet), the king of the Oberland, and let us hope the weather is clear enough to allow him to look down on the grand surrounding dependencies.

Under the best of conditions it is not much less than a ten hours' journey down to Grindelwald; so time must not be wasted in admiring the view, which a friend, who has seen it in mistless weather, has described as the grandest in the Oberland.

The route valleyward is made most quickly by the Hugi-sattel to the Agassizjoch, whence about four or five hours' persistent downward movement will land the mountain wanderer at the Schwarzegg Hut by way of the Finsteraarjoch.

The way back to civilisation along the wonderful track above the famous *Eismeer* will afford a pleasant relaxation after the long day's "snow grind." Beds of wild strawberries call for attention, but in the evening light it is not advisable to linger, until the somewhat dangerous, ladder-hung rocks have been passed, and the more solid comforts of the Bäregg are within reach. Thence to Grindelwald is an hour's good down-hill tramp.

The Mönch, on account of its central position, offers one of the best view-points around Grindelwald. The sight of its icy ridges from the Jungfrau had attracted my attention, and it also seemed a mountain that should repay the carrying of a camera to the summit.

Pleasant recollections of a former visit to its vicinity led us to attack this peak during a visit to Grindelwald in the June of 1904. Our experiences were rather extraordinary,

and I venture to think that the story is worth telling in detail with more personal references.

The party consisted of three amateurs, and we had been fortunate enough to secure, though for a fortnight only, the services of my old friend, Christian Jossi, who acted as guide. My companion of the previous year, Rudolf Bernet, came as porter. We had spent the greater part of the fortnight to good advantage, and regarded the Mönch as more or less of a pleasant promenade; however, it was ordained otherwise, and none of us bargained for the exciting days that followed. It was a beautiful, cloudless morning when we started off from Grindelwald and mounted through the much appreciated shade of the pine-woods to the Bäregg, *en route* for the Bergli Hut, which stands amidst the magnificent world of snow and ice on the other side of the Eiger. It is the second highest mountain hut in Switzerland, and was erected by the Swiss Alpine Club on a small but steep bunch of rocks which peep through the riven surface of the Fiescherhorn Glacier.

At the Bäregg we were all loaded up with stacks of firewood, and, after a long drag up the sun-baked slopes of the Kalli, it was a relief to arrive amongst the cooler glacier air. Meanwhile black clouds began to drift across the sky. They tarried amidst the gaunt crags of the Eiger on our right in that aimless fashion which usually signifies a prolonged stay, and ere we reached the hut, after eight hours' easy walking from Grindelwald, we had the experience of a mid-summer snowstorm.

On our arrival Christian obstinately refused to waste the precious firewood for drying our soaked garments, so, after a typical mountain meal, we rolled ourselves in the damp blankets, and were soon wrapped in the healthy sleep of tired men. Next morning we peeped from the hut, but nothing was visible at a distance of more than two yards, for a blinding snowstorm obscured everything. This continued for the two following days. Of course climbing was out of the question, and we learnt what it means to be snowed up nearly 11,000 feet above sea-level.

But at first the time did not drag wearily. Everybody possessed musical talent of some kind or other; both chorus and principals as well as the band, whose two instruments

consisted of a mouth organ and a frying-pan, displayed great staying powers and enthusiasm. The tiny interior of the hut afforded small scope for gymnastic feats; these took the mild form of a "push penny" handicap, and the scramble back to the warmest corner on the straw-covered bunk after the various heats. The top of the table was carefully marked out as a draught-board, and lumps of sugar served as pieces. The blacks were made by contact with the bottom of the frying-pan, but whites ere long assumed a like colour scheme, and disputes arose as to the properties of the two players. The game of draughts was not a success. The sugar had to be used afterwards; and as the gale raging outside found its way through the old building, draughts grew monotonous.

The amateur conjurer of the party seemed by his tricks to rouse the latent superstition of our local companions. When he made a franc disappear in his elbow and afterwards drop out of his stockingless knickerbockers, they agreed that he must be in league with "der Teufel." After several other equally surprising performances, our guide opened the door of the snow-bound hut, and we all looked anxiously out on the cloud-wrapped surroundings. "Ach, Gott!" he said, "a wise Herr who can make francs disappear and call the powers of evil to his aid can surely clear away this simple mist and cause the sun to shine." Such an elementary feat could be nothing after what had been achieved. Thus ended the second day.

On the evening of the third day the storm subsided, and we were able to get outside the hut and grope our way along the narrow rock-ledge which served as veranda. Our stores of food and firewood were almost exhausted; the melting of the snow for water had used up most of the latter necessity. Thus, after a night of hunger and cold, we were glad to leave our straw beds at 3 a.m., when a peep from the frosted window of the hut disclosed a marvellous sight. The sky overhead was quite clear, but far below in the dimness of the dawn we could see the valley filled with seething clouds. Later, as the sun tipped their edges with a golden fringe, fleecy fragments seemed to detach themselves from the main mass and rise up like ghostly beings to fade slowly in the deep grey of the firmament. The nearer mountain world, in which we dwelt awhile, seemed transformed; the black frowning crags of a

few days ago had vanished; we seemed to be placed above the clouds amid a beauteous world of great alabaster cones and wondrous domes of white. The memory of such scenes lasts a lifetime. Though marvellous to behold, these conditions, coupled with the lack of provisions, did not promise well for our venture. However, after a frugal breakfast, we roped together in the hut and turned our faces upwards to the snowy crest of the Mönch. We climbed the icy rocks behind the hut, and then followed an hour's tiring struggle up steep, loose snow, where for every step upwards we seemed to slide two downwards. Nevertheless, now up to our knees and anon up to our waists in the dry and powdery drifts, we eventually arrived at the Unter Mönchjoch, and had magnificent views of the Fiescherhorn on our left and the Mönch towering above us on our right. A cold breeze was blowing, and we could see a great cloud of soft snow careering to leeward from the upper ridges.

A slight descent was necessary to get from the *col* to the upper part of the Ewig Schnee Feld, which led across to the Ober Mönchjoch. A wide crevasse partially filled with soft snow spread below us like a treacherous trap, set to wrap the unwary in its cold embrace. After an exciting jump from the steep upper slope to the lower lip of the schrund, we plunged across the glacier and soon arrived at the foot of the actual peak of the Mönch (see illustration opposite).

The wind was roaring in the crags above our heads; and we could see that all the fresh snow had disappeared from these, whilst higher up, a ridge of hard, blue ice continued to the actual summit. The rocks were soon passed, and we gained a sharp arête of hard snow that gave access to the steep, icy ridge beyond. We were now high up on the exposed crest of our mountain, and great care was necessary, for a tremendous wind held rule that day in the upper world.

Our position was exciting in the extreme. We had to make our way along the sharp crest of the snow ridge, with the body carefully finding the balance at every step. There was no need to counsel steadiness, for the view down the almost vertical, icy slope, some thousands of feet long on either hand, was sufficiently impressive. The gale blew steadily across from the left, and as I stepped deliberately along the knife-



Abraham

ON THE WAY UP THE MÖNCH

BERGSCHRUND, MASKED WITH NEWLY-FALLEN SNOW, IS SEEN TO THE RIGHT OF THE PARTY

edge in the steps of those ahead, it was curious to notice how their bodies leant far over the abyss to windward. It appeared as though a sudden lull in the storm would precipitate them into space. Luckily this theory was not put to a practical test, and we safely finished our balancing feats by gaining some sheltered rocks on the right.

Here we munched some dry bread and frozen chicken, and drank some sour wine to brace us for the work ahead. Truly it was work indeed, specially for Christian, who for nearly three hours hacked and hewed with his ice-axe at that gale-swept slope. The angle of the ice must have been nearly 60° , and it was a fine sight to see such a master of the craft, with perfect balance and steady swing, calmly cutting each step in the icy staircase. Meanwhile the rest of us shivered with the cold. However, slowly but surely we mounted higher and higher, until the great cornices on our right allowed us to walk on their frozen crests. When quite close to the top an ominous crack came as a warning that we were too near the overhanging portion, and the leader almost pulled us off our feet by his sudden jump from the dangerous situation.

Meanwhile the wind had gradually sunk to a fair breeze, and thick white clouds rolled up from below; but we saw enough to convince us that the Mönch is the finest view-point in this part of the Oberland. It is encircled by all the greatest peaks, and its height (13,468 feet) enabled us to look over almost all its neighbours. Framed in gigantic clouds, we had peeps of the far-distant Pennine Alps rising beyond the Jungfrau, and our old friends Monte Rosa and the Weisshorn seemed to dwarf the spire-like peak of the Matterhorn almost fifty miles away. In the opposite direction the Eiger loomed weirdly majestic through wisps of skurrying mist.

Cloudy but comparatively pleasant weather prevailed during the descent, and, after safely gaining the Unter Mönchjoch, we plunged down through soft snow to the hut. There we ate the final remains of many meals, and discussed the question as to the safety of descending the avalanche-swept slopes below the hut *en route* for Grindelwald.

"Is it safe?" we inquired of Christian.

At that very moment the answer came with terrible suddenness from the overhanging slopes of the Fiescherhorn.

A broad stream of snow slid in a seething mass down and across the very route we should have to follow. It dashed down to the more level glacier, and disappeared with a roar in the vast depths of the huge crevasses. To be caught in such a relentless stream meant certain destruction. There was just a chance that the cooler air of evening would congeal the upper snows and hold them firm; so, somewhat disconsolately, we decided to wait for a time and watch developments.

Half an hour went by, and no more fell. An hour—two hours, and nothing of any moment had come away, so we decided to trust in Providence and take the chance. A few minutes brought us to the edge of the glacier, and, somewhat distrusting, we traversed across to it from the rocks. “Schnell! Schnell!” perpetually shouted Christian as we hurriedly followed him downward, now slipping, scrambling, stumbling, and anon glancing nervously backwards and upwards at the loosely held snow. Ominous hissing and crashing sounds were heard now and again; but nothing fell in our direction, and after about an hour of extreme excitement we arrived below the danger zone. There we flung ourselves on the snow and moralised on the safety, or otherwise, of mountaineering.

It is difficult to see how we could have avoided the danger. After all, as in other sports, the climber must at such very exceptional times pin his faith to the Great Goddess of Luck, and when she smiles he emerges safely, and embellishes his book with the adventure; but at the time his thoughts are rather too eschatological.

Waving up a thankful *au revoir* to our erstwhile home on the Bergli rocks, we crossed the Grindelwald Fiescher Glacier, and descended into the rain-clouds that hung over Grindelwald. We learned on arrival there that a storm of thunder and lightning had raged intermittently during the day, and our description of sunshine in the upper world was treated with scepticism and regarded as a joke.

The climb just described is that up the south-east ridge of the Mönch. Under normal conditions, and later in the season than early June, it is looked on as a very ordinary expedition, and forms the usual way up the peak. The summit has also been attained from the Bergli Hut by the north-east and south-west arêtes, and all these routes can also

be reached in longer time by parties staying at the Concordia Inn.

On the popular Wengern Alp side of the Mönch a long broad buttress runs down in a north-westerly direction with the Eiger Glacier on one side and the Guggi Glacier on the other. Near the foot of the steeper part of this buttress is situated the famous little Guggi Hut, which is visible from the Little Scheidegg, whence it can be reached in two and a half hours' easy walking. On account of its connection with the early pioneers, the tiny refuge possesses a strange fascination for all interested in the sport of mountaineering.

The hut is not much used nowadays, but it is conveniently placed for those who attempt the north-west buttress of the Mönch. This is one of the most difficult courses in the district. Easy rocks form the lower part of the buttress, but higher up there is a great overhanging wall of ice, which is very often impassable, and in any case the ascent involves more than a plenitude of step-cutting. This is the worst part of the climb, and higher up the summit is gained by taking to the south-west arête.

In the year 1899 an expert party completed the course in seven hours from the hut, and for those who yearn for climbs which possess a strong element of uncertainty, the north-west buttress of the Mönch can be strongly recommended.

The Guggi Hut is also used for the passage of the Jungfrauoch, which is, widely speaking, the *col* between the Jungfrau and the Mönch. The first ascent was graphically described by the late Sir Leslie Stephen in his well-known book, *The Playground of Europe*; but the passage is scarcely ever made nowadays, in fact it is impracticable in most seasons on account of the enormous crevasses on the Guggi Glacier and the ice-fall of the Kùhlauen Glacier in the upper section.

But the Guggi Hut is better known as the sleeping-place for the ascent of the Jungfrau from the west; when seen from the Little Scheidegg, this side of the famous peak appears vastly complicated and dangerous, on account of the many hanging glaciers and avalanche-swept slopes. However, a fairly safe course can be made under perfectly good conditions of weather and snow. The route from the hut lies at first

up the Guggi Glacier to the plateau above the first great ice-fall. Then after bearing away in a westerly direction, a loose rock-ridge gives access to the conspicuous corniced crest of the Schneehorn. The overhanging cornice often causes considerable delay, but, once above it, there is a comparatively easy short descent in a south-westerly direction. The Silberhorn now rises grandly in front, and after a passage has been forced through a mass of huge crevasses and splintered séracs, some easy snow-slopes provide a way up to the small *col* just south of the shapely peak. A fine rock arête is now climbed in a south-easterly direction to the "Hochfirn," whence the south-east ridge of the Jungfrau is attainable some distance above the Roththalsattel, and quite close to the summit.

CHAPTER XXII

THE SWISS ALPS—THE BERNESE OBERLAND (*continued*)—THE WETTERHORN, SCHRECKHORN, AND EIGER

“Lo! where the pass expands
Its stony jaws, the abrupt mountain breaks,
And seems, with its accumulated crags,
To overhang the world.”—SHELLEY

FEW mountains in Europe convey to the ordinary Alpine traveller such an idea of precipitous grandeur and overpowering vastness as does that magnificent north-westerly precipice of the Wetterhorn. The sight of it from the slopes of the Great Scheidegg is unique.

It is worth a journey to Grindelwald to recline amidst the sunny, sweet, flower-scented pastures, and gaze hour after hour on this stupendous example of Nature's architecture. No edifice of man's construction can compare with this work of the Great Creator; so says the faithful worshipper. Others, doubtless, will differ; these may fail to see any charm of form or shape in these “accumulated crags”; they are simply crags, and nothing more; stupendous, but devoid of beauty. Wordsworth's idea as applied to a flower is equally applicable in this case—

“A primrose by a river's brim,
A yellow primrose was to him,
And it was nothing more.”

But the real mountain enthusiast sees in that huge cliff of the Wetterhorn the most marvellous miracles of design. The imminence of the great buttresses, the receding perspective of the deeply-carved couloirs, the upward sweep of the gigantic slabs, and the beauty of their coalescing curves, crowned with a cupola of snow; all these are but elementary details of the

wondrous structure. The idea might be carried further, but the climber will probably sum it all up by saying, "It's a grand mountain; let me see it from the top!" The next remark will probably be, "Where is the way up it?"

In answer to the latter question, it may be said that the usual route cannot be seen from the Great Scheidegg Pass; but lower down the valley, in the direction of Grindelwald, the way of approach is fairly well visible.

The great glacier-filled cleft between the Wetterhorn and the Mettenberg provides the key to the situation; this gives access to the Gleckstein Hut (7,671 feet), where the night is usually spent. This sleeping-place is visible from Grindelwald; it stands near the top of the fine cliff which forms the left wall of the cleft previously mentioned. From the hut the route runs, roughly speaking, directly up by a capacious couloir to the snowy *col*, usually called the Wettersattel, which is partially seen on the sky-line just to the right of the steep final peak. The way from the Sattel to the summit is for the most part invisible from Grindelwald; it lies more on the eastern side.

From Rosenlauri, on the farther side of the mountain, there is another somewhat popular way up the Wetterhorn; it consists of a long and somewhat monotonous snow trudge, and joins the Grindelwald route on the Sattel. The guides are always keen on traversing the peak from Grindelwald to Rosenlauri. It is a wearisome and comparatively uninteresting proceeding, and the evening's tramp back over the Great Scheidegg can scarcely prove very enjoyable after the earlier pleasures of the day. The only advantage of the traverse is that the guides are entitled to an advanced tariff.

Parties who have been delayed in reaching the summit will probably be informed that it is unsafe to descend the Great Couloir to the Gleckstein Hut late in the day, on account of bad snow and falling stones. This may be so under certain conditions, but some professionals are too prone to use this as an argument for making the traverse. With other friends, I have suffered in this respect, and so speak feelingly. Later on in the present chapter I shall attempt to describe a way of getting down in the afternoon to the Grindelwald side of the peak without encountering the risks of the Great

Couloir. There are two or three other "fancy routes" up the Wetterhorn; one of these is circuitous, and only possible under certain conditions of the snow; the others cannot be generally recommended.

What the Matterhorn is to Zermatt, the Wetterhorn is to Grindelwald. On account of its unmistakable prominence and convenient situation, it is climbed more often than any mountain in the vicinity. The "Storm Peak" has suffered many indignities from irreverent mortals; for instance, its huge western precipice has fallen a victim to the engineer, and the frequency with which it is ascended by *tout le monde* has led to its being called locally "The Ladies' Peak."

Many travellers are misled by this latter name. Man in his natural arrogance is apt to think that a mountain which has been climbed by a woman cannot possess much difficulty. This is altogether wrong. There are plenty of agile, not fragile, members of the fair sex, who with two or more first-class guides have proved themselves capable of the greatest mountaineering feats. Many women climb splendidly, and though in the popular opinion it may seem an indignity to call the Wetterhorn "The Ladies' Peak," others realise that no insult need be inferred. But there is a danger in thus apparently belittling a mountain in the popular eye, as it leads in some cases almost to disrespect. The ascent is apt to be looked upon by casual mountain travellers more in the light of an easy scramble than as a serious undertaking, until some day or other news comes to Grindelwald that the Wetterhorn has asserted its claims to be considered a first-class peak; a dreadful catastrophe has happened. The death-roll of the Wetterhorn is exceeded by that of few of the great Alps.

The warning being given, I may now tell the story of our ascent of it early in the June of 1904, with Christian Jossi as guide. We took Rudolf Bernet as porter, to help us to carry our camera up about 9,000 feet to the delicate snow-tipped summit.

The route to the Gleckstein Hut proved most entertaining. After the walk along the valley, we continued up the moraine to the right of the Ober Grindelwald Glacier, and thence a series of steep ladders led up a steep rock-face and on to the glacier. After crossing this we strolled up flower-clad slopes

and rocky staircases, until, after about four hours' "easy going" we reached the hut just as the lights of Grindelwald began to twinkle through the gathering darkness below.

On our arrival we received a friendly greeting from a young naval officer, who with two guides was making his first serious climb. The evening was passed in a jovial fashion; Rudolf's expert performances on the mouth-organ proved entertaining as well as helpful, and I am afraid that our rollicking choruses disturbed the echoes of these stern, weathered crags of the Wetterhorn. The parents of our naval friend were considerably concerned as to his safety, and every now and then he signalled to them by an elaborate series of sky-rockets, which were answered from Grindelwald far below. I can safely say that the guides found the despatch of those rockets more dangerous than the next day's climb. They went whizzing all around the hut in most unexpected directions, and it was a positive danger to go outside whilst the illuminations were in progress. The grand finale was reached when a rocket went fairly astray, and after upsetting the two guides, it plunged into a large quantity of new straw, which had been brought up at much expense and labour to renew the bedding in the hut. Our companion found his first climb an expensive one, and that straw must have been of an extra special quality, judged by the amount he was asked to pay for it.

None of us slept much that night; but the rest allowed us to recover from the frivolities, and just before dawn next morning we joined in a hasty breakfast and set off in two parties. The stars brightly twinkling overhead gradually paled with the advance of day as we passed up the slopes to the south end of the small Krinne Glacier, where the rope was brought into use. The weather was perfect, and not a cloud was visible. We started climbing the rocks just to the left of the main bed of the Great Couloir in a somewhat uncertain light, and at several places the thin glazing of ice on hand- and foot-holds increased the difficulty.

Our naval expert said that he felt more at home on the ratlines, and his nervousness was scarcely soothed by Christian's pointing out the traces of an unfortunate Swiss workman, who had perished in the Great Couloir on our right two days before. Two workmen, without previous climbing experience, had made



Abraham

A VIEW NEAR THE FOOT OF THE GREAT COULOIR ON THE WETTERHORN
THE EIGER AND MÖNCH BEYOND

a wager with some friends to get to the top of the "Damenberg ohne Führer."¹ As a natural result, they became lost on the great, snow-wreathed cliffs, and one of them, after taking off the rope, had attempted to slide down a snow-slope, which, so far as he was able to judge, continued right down to the glacier. Unfortunately, there was really a thousand feet drop between the end of the slope and the glacier, and his friend saw him shoot down to destruction.

Such an accident when looked at calmly can scarcely be said to be due to the mountains, but rather to the folly of those who attempt them under such circumstances. Our friend was pacified by this explanation.

We mounted rapidly until the increasing steepness and looseness of the rocks rendered the crossing of the Great Couloir advisable. It was obvious that the retaining wall on the other side sloped at a much easier angle. Only one glance was needed to make us realise that at times this part of the climb may prove dangerous, for even at this early hour, though the sun's rays were only just catching the upper crags, small fragments of ice and stones trickled down the broad bed of the couloir.

As it was necessary to traverse in a somewhat upward direction, the party was more or less under fire for several minutes, and the experience was sufficiently exciting. It was a characteristically picturesque sight to watch the others crossing; but my suggestion to halt and take a photograph did not seem to appeal to them. Christian stared hard at me through his snow goggles, and then smilingly suggested that I should come and pose in the danger-zone whilst he took the photograph. The guides of the other party behaved differently. They evidently feared that the innocence of their patron might lead him to favour the suggestion, so they burst forth into such forcible language that some of us felt thankful that we possessed only a rudimentary knowledge of their native *patois*.

After safely passing the *mauvais pas* we climbed quickly up some broken rocks, and a few hundred feet higher we were able to use the snowy bed of the couloir itself as a way up to the well-known Wettersattel. As we emerged from the cold recesses of the Great Couloir into welcome sunshine, the

¹ "The Ladies' Peak" without guides.

shapely final peak appeared quite close on the left. But its steep slopes of snow and rock rose quite 900 feet above us, so we took off the rope and breakfasted on some comfortable sun-warmed slabs.

Meanwhile one of the party lent excitement to the situation by wandering off to the upper snow-slope, and disappearing up to the arms in an incipient crevasse. Luckily it was partly choked with snow, otherwise we might have been minus our jovial companion. Anyhow we lost our bottle of wine, for Rudolf, who was busy sampling its contents when the accident happened, became so suddenly alarmed that he dropped the bottle, and it clattered down the crags below. The rescue—alas! not of the wine—was easily made with the rope, and, the second breakfast being disposed of, we continued up the steep snow of the peak. Nearly 80 feet short of the actual top we foregathered on a few outstanding rocks.

From there Christian had to cut steps in the almost perpendicular ice which formed the tip of the peak, and just at the exit thereon an overhanging cornice of snow and icicles, which had to be cut away, gave him considerable trouble. Those waiting below in the line of fire did not find the time of waiting at all monotonous; the flying fragments attacked some of us too effectively. However, ere long the cannonade ceased, and, when our leader was fairly established on the summit, we found it a none too easy matter to follow in his footsteps even with the rope as safeguard.

The view was glorious in every direction. The Mönch, the Eiger, and the Schreckhorn were the most striking features; but range beyond range of snow-capped peaks lay far away to the south bounded by the dreamy outlines of the Pennine Alps. Wonderful as were the distant views, the nearer scenes left a more vivid impression on the mind. The Wetterhorn itself stands unique amongst Alpine summits, and we realised this as we sat astride the sharp snow-ridge, 3 or 4 yards long, and peered over the short, icy slope to the north-west. For 10 or 12 feet there was a near foreground of snow, and then the eye saw nothing between that and the smiling, chalet-dotted pastures of Grindelwald about 9,000 feet below. There was the same sudden plunge into space in practically every direction, and I have never been on any other summit which

conveys such a striking impression of aerial isolation. Later in the season the effect becomes modified; the beautiful, delicate, icy crest is flattened by the tramp of many feet. The effect of insulation which is afforded by standing on the narrow top shows itself in curious ways. I have even heard people talk of the subtle fascination of a short slide down that north-westerly slope into space; but that bracing June morning none of us showed the slightest inclination to try such an experiment.

We bade adieu to our naval friend on the top, for he decided to make an earlier descent, because we wished to spend some time in photography. The sight of our large camera on the actual crest of the Wetterhorn was meanwhile causing a sensation in Grindelwald; unknown to us, our movements were carefully watched through some of the many large telescopes which adorn the hotel verandas.

Avalanches were sliding off the crags when we began the descent, so Christian was good enough to take us down the peak by a special way of his own invention. From the Wettersattel we moved in a south-easterly direction; and, passing across the exits from several wide couloirs, we took to some snow-covered rocks which led down to the Ober Grindelwaldfirn. A long well-marked rock-ridge was a conspicuous object immediately on the right, and we kept it in sight all the time.

Below the rocks and after a short descent to the glacier, a striking cleft was visible in this ridge. This proved to be the head of a long, snow gully, and we followed it down in the direction of the Gleckstein Hut, which was reached after crossing a short portion of the Krinne Glacier. Though late in the afternoon, there was no trouble from falling ice, and we were glad to know of such a comparatively safe means of descent.

The fact was obvious even from above, that the usual route by the Great Couloir would have entailed considerable risk. After more delay at the hut for photography and another meal, we started down at sunset. When the curious path was gained which traversed the great glacier-polished slabs popularly known as the "Zybachstritte," the grandeur of the scene caused us to pause awhile. We stood on the great bare

platten, which sloped almost perpendicularly over to the tumbled chaos of ice far below in the depths of the glacier valley, and gazed silently upwards at the glittering pinnacle of the Schreckhorn, bathed in the marvellous roseate colours of a perfect Alpine after-glow. The contrast between valley and peak recalled vividly Ruskin's beautiful soliloquies on "mountain gloom and mountain glory."

We were in no hurry to exchange such peaceful scenes for the noise of a Grindelwald hotel, but Christian hinted that a certain *fräulein* of his acquaintance might be growing anxious, so we raced down the path to the glacier. The rest of the journey valleywards was finished by lantern light, and our late arrival at the hotel gained us the privilege of dining in peace without the usual formalities.

Expert parties who approach the Wetterhorn from Meiringen or Rosenlauri may be glad to know that by staying a night at the Dossen Hut (8,859 feet), it is possible to traverse the Wellhorn (10,485 feet) on the same day. The top of the latter peak can be reached from the hut by the usual eastern *arête* in three hours' easy going. The descent to the Schwarzwaldfirn runs at first over the south *arête*, but this is soon quitted for the west face of the mountain. The lower section, about 200 feet in height, is very steep, and for the final drop on to the glacier an 80 feet doubled rope may be used as a safeguard. Thence easy snow-slopes lead up to the ordinary track from the Dossen Hut to the Wettersattel.

The Schreckhorn (13,386 feet) is usually considered the most difficult peak in the Oberland. Some climbers are inclined to think that it possesses a reputation beyond its deserts. Almost all the great peaks that have received exhaustive literary attention from the pioneers suffer somewhat in this respect.

The late Leslie Stephen's description of his first ascent of the Schreckhorn is no doubt the cause to some extent of this popular idea as regards its difficulty. From this account it is almost impossible to make out the course followed by the party on the upper part, but it is generally recognised that the ordinary way now used is altogether different and much easier. Some authorities appear to hold the opinion that the famous pioneer made some error in his narrative regarding the right

or left hand when describing the ascent to the summit. Mr. Coolidge writes that "the precise route does not seem to have been followed by any later climber."

As a matter of fact there are numerous ways of attacking the widely extended rock-wall which leads up to the snowy Schrecksattel about 350 feet below the summit on the south-east. This wall, which rises above the Schreckfirn, is the outstanding feature of the ascent of the mountain by the ordinary route. Technically speaking, it may be said to vary under different conditions from easy to almost impossible. Many couloirs intersect the face; one very well-defined rift appears to continue direct up to the Sattel, and the rocky ribs to the right of this are usually utilised for the greater part of the ascent. Higher up these ribs divide in many directions, and when they become almost perpendicular it will be obvious that a traverse to the left must be made to reach the Sattel. In the afternoon the whole face is exposed to falling stones, but this danger can be partially minimised by descending on the crests of the various rocky ribs and avoiding the couloirs as much as possible.

The north-west ridge of the Schreckhorn, which looks so magnificent from the Wetterhorn, affords the most interesting means of approaching the summit. The sharp arête may be conveniently attained from the south-westerly side by way of the Ober Kastensteinfirn. The point of arrival is at a small snow saddle nearly 150 feet above the *col* between the Nässihorn and the Schreckhorn. On the rocks above the saddle the climbing is quite difficult enough to keep an expert party engrossingly engaged for three or four hours, according to the state of the peak. Several fine towers adorn the arête, and these can usually be best turned on the left-hand side, with impressive views meanwhile down to the Lauteraarfirn. Under good conditions and with a first-class rock-climber as leader, it is possible to climb direct over all the obstacles, thus avoiding the somewhat icy traverses which are involved in making the turning movements.

When the upper reaches of the Schreckhorn are free from ice, the peak may be accessible by the south-west ridge, which exhibits such a fine outline on the left to parties ascending by the ordinary route. The ridge is reached from the upper

level of the Schreckfirn by climbing up a steep rock buttress in a westerly direction until the main arête is struck about 850 feet below the summit.

The only other route worth special mention is that from the south-east or Lauteraarsattel. This expedition is seldom undertaken, and the fact that an experienced party took nearly eleven and a half hours from the Gleckstein Hut will show that the way is long as well as difficult. This latter course is rather shorter from the Dollfuss Hut near the Grimsel than from the Gleckstein. For all the other routes mentioned the Schwarzegg Hut is most favourably situated, and it affords comfortable sleeping quarters.

When we visited the Schreckhorn in 1904, this latter remark regarding the hut could scarcely be considered correct. We had come up from Grindelwald to unexpectedly find about a dozen Frenchmen in possession and *en route* for the Grimsel over the Strahlegg Pass. They belonged to some small, village, climbing club, and each was decorated with a huge badge. It was their first experience of an Alpine hut, and their wild excitement and delight found an outlet in making the early part of the night hideous with the latest, French music-hall songs.

We retired to bed about nine o'clock, but for over an hour and a half later they laughed and chattered to such an extent that sleep was impossible. After a polite request for silence, comparative peace reigned for about a quarter of an hour. Then suddenly from the further corner of the hut there arose the most horrible uproar, it sounded like nothing short of murder. Everybody jumped up in alarm, and we discovered that one of the Frenchmen was varying the proceedings with an epileptic fit. We did all that could be done under the circumstances, but at 11.30 p.m. the commotion continued, so we arose, and, after drinking some hot soup, we lighted our lanterns and stepped out into the darkness *en route* for the summit of the "Terror Peak." Verily the hut at its base justified the title on that occasion. However, we soon recovered from the stormy scenes. The night was perfect. As we strode across the snow, the complicated crags of our peak rose black and massive in front. Behind, the Finsteraarhorn towered grey and gloomy in the reflected light of the departing

moon, which cast an uncertain gleam over the vast, snowy wilderness. Farther round to the west the Eiger and the Mönch seemed to rise protectingly in front of the graceful Jungfrau, whose head was swathed with wisps of gauzy clouds as with a fleecy veil.

Ere long more practical matters diverted the attention, for we were kept busy kicking steps in the hard surface of the couloir which rises behind and north-east of the Schwarzegg Hut.

In the uncertain light we could just see towering above our heads to the right the snout of the huge, overhanging glacier, and our couloir bore traces of the débris which it constantly threw down in our direction. Christian Jossi was our guide, and the sight of the unsafely-poised ice, which seemed to grin grimly through the semi-darkness, made him lead us at a furious pace as far to the left as possible. We understood the cause of his nervousness. Only two years previously he met with a serious accident in this couloir, whilst descending late in the afternoon with another guide and an amateur. They had arrived near the bottom when they heard a roar and a hiss above their heads. A mass of the hanging glacier had broken off and was crashing down upon them. There was scarcely time to glance upwards; to run out of the line of fire was impossible. Their attempt to do so was soon over, for a seething mass of ice and snow swept them off their feet and hurled them downwards on its crest. By what was practically a miracle none of them were struck with the larger masses, nor were they dashed against the rocks; in fact, they slid wildly down with the avalanche until it stopped quietly on the level glacier below. Christian sustained several broken bones; the other guide suffered more seriously with a damaged spine, from which he has since wholly recovered; the lucky amateur escaped almost unhurt. Such was the exciting story which Christian told us, with much amplification and dramatic gesture, when we halted for breath above the dangerous section.

When the couloir grew narrower and steeper we traversed to the rocks on the right, and clambered carefully up them. They were none too easy in the deceptive light shed by the two folding lanterns. The rope was a great comfort to those

who had no lantern, and I well remember becoming stranded on a steep slab like a star-fish in difficulties until, by sheer necessity, I had to use the rope as hand-hold. Quite 300 feet higher we left the rocks and bore away to the right on to the more level glacier. About 3 a.m., when the coming dawn had shed a welcome light over the upper world, we crossed the higher reaches of the Schreckfirn, and stood below the couloir-seamed rock-wall which sloped up to the Sattel below the final peak.

A great bergschrund, wide and deep, barred the way up to the rocks. To cut steps down into its black and mysterious depths and up the other side would have entailed a considerable loss of time; so we skirted carefully along the lower lip in search of a place where it might be choked with fallen, icy débris. Some distance to the left we were delighted to find a good snow bridge which spanned the gulf most conveniently. After carefully testing it by probing with his ice-axe, Christian crawled gingerly across while the rest of us held the rope in case the bridge collapsed. It proved equal to the strain, even the heavy man of the party passed across without adventure, and the fact that one of his lighter followers clumsily stuck a leg through the fragile structure appeared to please him immensely. The culprit suffered enough without the pitiless criticism cast at him, for he had a disagreeable view through the rift into the chill depths of the crevasse; there was also a possibility that the whole mass might break away when once fractured. However, careful movement obviated this, and we soon all foregathered on the lower rocks to enjoy a well-earned breakfast.

A quarter of an hour later we were off again, and the subsequent three hours were spent in the enjoyment of some exciting step-cutting interspersed with interesting rock-climbing. As we mounted higher the sky grew ominously overcast, and, after suffering rather severely from the extreme cold, we emerged on the Sattel, and there met in full force a furious gale of wind blowing from the chilly north-east.

Some of the party elected to stay on the sheltered rocks below the Sattel, whilst the others scrambled up the final section. The upper arête consisted mostly of snow, but icy rocks peeped through at places. Below the actual summit



Abraham

THE FINAL RIDGE OF THE CROSS SCHRECKHORN

there was a narrow ridge of snow, corniced and overhanging at one side. It was probably in somewhat the same condition when Baumann, the Grindelwald guide, saw a young Englishman perish, who was trying the ascent unroped. The guide watched him coming along from the summit, when suddenly he also saw the snow break away under the young man's feet, and he crashed through space to the rocks and stones below. Such a sinister history, coming as it were out of the heart of the storm, did not induce a long stay on the cloud-wrapped summit, so we hurriedly began the descent and soon joined our friends on the Sattel.

The weather was rapidly growing worse and the wind showed a tendency to back into the south, so we scrambled as quickly as possible down the great rock-wall. The bergschrund gave no trouble, in fact, being situated on such a steep slope, we took it in a sort of "rough and tumble" jump and glissaded below it down to the more level Schreckfirn.

There a discussion arose as to the wisdom of descending by the couloir ascended in the morning. Christian was very naturally strongly in favour of using the more circuitous but safer route by the Strahlegg. The amateurs were soaked to the skin and weary of the storm, so the shorter route appealed to them most forcibly. Christian's argument about the dangers of the couloir was of no avail; somebody settled the matter by suggesting that the very fact of his having had such a desperate experience enhanced our safety. Whoever heard of the same couloir making two attempts to kill a climber? If fate had decreed that as the scene of his demise, he might rest assured that the work would have been properly finished at the first attempt. Thus did foolishness prevail, and we raced madly down the dangerous section to the hut, with Christian an easy winner.

It was pleasing to find that the Frenchmen had departed, for our programme included the spending of another night at the hut and an attempt on the Lauteraarhorn (13,265 feet) next day. This is the next peak south-east of the Schreckhorn, and a friend's description of the magnificent rock-climbing to be encountered on its south-westerly arête had prompted this arrangement.

Fortunately there was plenty of firewood in the hut, so we were able to dry our clothes and repose meanwhile amongst the surfeit of blankets. But the weather decreed against our proposed expedition up the Lauteraarhorn. As the afternoon wore on a steady gale swept across from the south-west, so, at last realising that the expedition would be impossible for two or three days, we gathered up our baggage and set off for Grindelwald. Unluckily our lanterns were forgotten in the hurry of packing, and it was pitch dark when we arrived below the Bäregg at the path which has been cut along the face of the precipice above the Grindelwald Glacier.

Although not due to the same cause, we came very near repeating the adventure of the well-known guide, who had become "three sheets in the wind" by over-indulgence at the Bäregg. Like us, he groped along by the broken rails, which guard the unwary traveller from walking over on to the glacier 500 feet below. Coming to the end of the rails, he not unnaturally concluded that the path continued straight ahead; but there is a sharp turn, and he disappeared over the edge. He must have fallen at least 100 feet on to a narrow rock-ledge, but after a night's rest he got up, shook himself, and strolled down to Grindelwald little the worse for his marvellous escape. The late Leslie Stephen submits the choice of two morals regarding the above: "Firstly, Don't get drunk when you have to walk along the edge of an Alpine cliff. Secondly, Get drunk if you are likely to fall over it."

For some time we had had a distant acquaintance with the aged and weather-worn old Eiger; but a few days later we invaded his sanctuary and established a closer friendship. As we stood on the Little Scheidegg and gazed reverently up at his snowy poll the evening before the visit, some friends came along and told us that he was not quite as formidable as appearances would indicate. It seemed that they had learnt something of his nature the day before, and reported that his icy flanks were now covered with new snow, firm and safe, which obviated the need of much cutting of steps in his bulky breast,—a proceeding which he sometimes resents by dropping avalanches on the operators. As a matter of fact,

whilst this conversation was in progress our peace of mind was disturbed by the sight of a great white cloud floating down from his side in the direction of the Eiger Glacier. A thunderous roar echoed down to us in the still evening air. Ere the accumulating cloud had reached the base, we realised that an exceptionally fine avalanche had fallen. This caused much delight to some of the spectators; but we failed to enjoy it at all, for the vast mass had fallen down and across the very route we had to follow on the morrow. Thus we decided to make an early start about midnight in order to complete the descent as soon after midday as possible. To cut a long and uneventful story short, I may say that we found the Eiger in his most amiable mood. The weather was perfect, and he threw neither stones nor snowballs in our direction.

The route, which was the ordinary one by the west ridge and face, can be seen excellently from near the Little Scheidegg. After passing the Eiger Glacier Station, which seemed strangely quiet and peaceful in the night air, we walked up stony slopes for some distance. Even in the dim light cast by our lanterns the ravages of the avalanche of the previous evening were soon apparent. Keeping close in by the impending rocks of the Rothstock on the left, we scrambled up some long slabs the holds on which were masked with débris.

Above the Rothstock and away to the right a steep snow gully terminated on some easy rocks; and these being free from ice, we scrambled quickly up them until suddenly we seemed, in the twilight of dawn, to come to the edge of nothing—if the expression may be permitted. Several thousands of feet directly below lay the gloomy valley of Grindelwald; it looked as though a moderate jump through space would land the aerial acrobat amidst its sleepy châteaux.

Continuing almost directly up the arête some difficult rock-climbing required careful attention, but eventually it became necessary to traverse to the south face of our ridge, where a simpler ascent up steep snow allowed us to mount quickly. Just below the top there was a short spell of step-cutting, but in about seven hours' time from the Scheidegg, we stood on the corniced summit, and were greeting our old

friends, the Schreckhorn and his neighbours, on the other side of the range.

Nothing exciting happened during the descent; the dreaded avalanche failed to put in an appearance; but, long before we saw any signs of civilisation, the screaming whistle of locomotives and discordant sounds of holiday crowds were wafted up to us. Such noises seemed strangely out of place amid the grandest of Nature's solitudes, and I fear that the Eiger must in a few years become comparatively deserted by climbers. Of course it is always possible that some equally safe way may be found up the peak from the side of the Bergli Hut, but at present there is practically only the one satisfactory approach to the summit.

It should be mentioned that the Eiger has been surmounted by the south-west and south arêtes, but both of these are generally approached by way of the dangerous and complicated ice-fall of the Eiger Glacier.

The well-known but almost unvisited pass of the Eigerjoch, between the Mönch and Eiger, can be reached either from the Bergli or the Scheidegg, and from the former sleeping-place the south ridge of the Eiger should some day yield a magnificent climb. To avoid confusion it should be understood that two passes quite close together possess the name of Eigerjoch. The south col is fairly easily accessible from the Bergli, but what has been called the "true" or north pass of the Eigerjoch has not yet been reached direct from that side.

Thus, to climb the south arête of the Eiger, parties have found it necessary to make the traverse of the ridge between the two passes from south to north; and as a number of experts spent over five hours on this one section, it may be inferred that this way up the Eiger is scarcely satisfactory.

It only remains to notice the almost impossible Mittellegi Ridge. This forms the jagged outline east of the summit, which is such a striking feature of the Eiger when seen from Grindelwald. Its ascent has not yet been accomplished, but two parties have descended by this route. The first party spent eleven hours on the ridge only, and left behind them about 500 feet of rope, by means of which they lowered themselves over the most difficult portions.

Those climbers who find themselves with a day to spare



Abraham

WILL IT HOLD?

A DANGEROUS SNOW-BRIDGE ON THE EIGER GLACIER

before leaving Grindelwald would do well to pay a visit to the marvellous ice-fall of the Eiger Glacier. Train can be taken to the Eigergletscher Station of the Jungfrau railway, and in two hours it is possible for the careful mountaineer to be threading his intricate way amongst the wondrous beauties of the remoter ice world. Probably nowhere in Europe are such huge crevasses and towering séracs so easily visible at close quarters. Of course the expedition is not suitable for novices; such places require the services of an expert guide. It is inadvisable to wander for long beneath "lurching séracs." Despite certain high-spirited enthusiasts who say "that they are always toppling, but never fall," they sometimes obey the natural law of gravitation. There is neither pleasure nor glory in being knocked on the head by one of these falling monsters, and, to say the least of it, no more unsatisfactory ending to a mountaineering holiday could be imagined.

CHAPTER XXIII

AROLLA AND ITS PEAKS

"If thou art worn and hard beset
With sorrows thou wouldst fain forget,
If thou wouldst learn a lesson that will keep
Thy heart from fainting and thy soul from sleep
Go to the woods and hills! No tears
Dim the sweet look that Nature wears."—LONGFELLOW

IN other words, go to Arolla; but put a limited faith in the poetic sentiment of the final rhyme, for the heavens sometimes weep even in this "mountain Paradise." Anyhow, after storm comes sunshine, and it would be a dry world without the tears.

Few Alpine valleys combine so delightfully the unspoiled majesty of snow-capped mountains with the simple beauty of flowery pastures and woodland scenery, as does that favoured spot in the remoter Valais.

No screech of mountain railway or "blare of cheap German band" disturbs the peaceful, rustic calm. The rowdy music-hall songs of some personally conducted party are unknown, only the tinkling of cow-bells and the lowing of cattle are heard above the voices of the mountain streams, or their counterpart, the song of the breeze through the swaying pines.

The real mountaineer is essentially a lover of solitude. As years go by it is becoming more and more difficult to get away from the "madding crowd" and the worry and moil of city life. Arolla is almost untouched by the onset of modern civilisation, though of course the ubiquitous Swiss hotel proprietor is represented by at least two large hotels, and his patrons are not uncivilised enough to refuse the comforts he offers.

Taken as a whole, there is no more beautiful valley in the

whole European Playground than the Val d'Hérens, which diverges in an almost southerly direction from the Rhone valley, and more or less parallel with the contiguous valleys wherein lie Zinal and Zermatt. Almost at its highest extremity and in its westerly branch are situated the few weather-beaten chalets and comfortable hotels, which mountain lovers know as Arolla. On most maps the place is unnamed. It is essentially an Englishman's Playground, for our countrymen practically monopolise the accommodation, and mountaineering is carried on there with the same *verve* and enthusiasm as at such famous homeland resorts as Wastdale Head and Pen y Pass. The nature of the peaks and the accessibility of their bases make this Alpine centre especially suitable for the operations of fairly experienced guideless parties.

My first visit to Arolla was in the June of 1902, and probably I could not better demonstrate its charms and advantages than by the short story of our guideless experiences on that occasion. Some of the topographical and other details may also prove useful to other mountain travellers who dispense with professional assistance.

We were a merry and almost riotous party of four when our wearisome railway journey from England finished at Sion in the Rhone valley, and we betook ourselves to a dilapidated-looking conveyance, the like of which is unknown in Great Britain. Our luggage was heavy and bulky, so for its transit we engaged the only available vehicle, which was even more "ramshackle" than the one to which we clung, and this followed with our belongings. We ascended many dangerous peaks at Arolla, but it is no exaggeration to say that the six-hour preliminary drive up to Evolena was more dangerous than the actual climbing.

Leaving Sion we crossed the level bed of the valley and arrived at the foot of a severe gradient. There we descended from our chariot, being apparently interested in the question of cruelty to animals, though, as is so often the case, I fear it was more the question of personal safety that prompted the mock philanthropy. A few weeks before some of us had seen a motor-car run backwards down a mountain-side. Anyhow, our kind regard for the horses had its reward, for we walked steadily up that long hill, which must

have been about 2,000 feet high, for almost an hour and a half; whilst the vehicles followed, assisted by our united pushes at the steepest parts where the road had been partly washed away by storms.

Then we entered the upper level of the main valley, and were able to avail ourselves of the discomforts of our carriage just as we began to wonder why we had brought it. The apology for a road trended upwards along the right-hand side of the valley, with beetling crags above and a chasm 1,000 feet deep below, in whose bed roared the typical Alpine torrent. At the most dangerous parts there was no protecting rail. When the wobbling wheels of our carriage came only a few inches off where the roadside dropped into space, we had uninterrupted views of the shortest way down to the torrent. Everybody was nervous except the driver, and when we "tossed" for the near-side seats, he comforted us by pointing out a place where a carriage had fallen over, and hung suspended above the precipice by catching in a tree. At one time a wheel became unsafe, and at another the piece of rotten cord, which was used as a trace, wore out, and we had to part with some of our Alpine rope for repairs. Eventually we reached Evolena, and vowed that our next journey thence would be on foot; but the good resolve may have been unnecessary, for I have since heard that both road and transit service have recently been improved.

After spending the night at Evolena, next morning we strolled for two or three hours up the mule track to Arolla. On each side towered splendid peaks; the sight of these made us forget all transport difficulties, and long to make their closer acquaintance.

The Arolla hotels are situated at the head of the valley, where profuse vegetation practically ends, and the barren glacier moraines begin. The surrounding heights are none of them much loftier than 12,500 feet, and as the village itself stands nearly 7,000 feet above sea-level, it will be understood that the delights of sleeping in a hut are not often a part of the programme at Arolla.

Almost all the surrounding mountains form interesting climbs; but the Aiguille de la Za, the Petite Dent de Veisivi, and the Aiguilles Rouges are the favourite rock-



Abraham

A FAVOURITE AROLLA CLIMB; THE DENT DE SATARMA

climbs, whilst the Pigne d'Arolla and Mont Collon are the popular snow peaks.

It is usual for a first day's training at Arolla to walk down the valley, trudge up to the Lac Bleu, and climb the Dent de Satarma after picnicking in the adjacent pine forest. The ascent of this aggressive-looking pinnacle is short, but distinctly on the gymnastic side; and, if too much lunch is indulged in, its conquest is no easy matter. At one point near the top the situation is distinctly thrilling, because the hand- and foot-holds are scarcely large enough to ensure perfect safety, and the view down to the valley straight below is sensational. For some people the pleasures of such a climb can only be felt when they have reached the base again, for on the summit the climber is faced by the thought that the getting down again must prove difficult. However, one of our party knew from long experience that the descent is almost invariably easier than the ascent, and the absence of the usual human windlass at the top, in the shape of a Swiss guide, was not of much importance.

Our next expedition was the Petite Dent de Veisivi, which will always be remembered as the scene of the appalling accident to Dr. John Hopkinson and his family in 1898. It will never be known exactly how the sad catastrophe happened, for the entire party, consisting of father, son, and two daughters, perished.

Probably the most exciting part of our expedition was the rough way in which our burly "trainer" tumbled us out of bed in utter darkness before 3 a.m. The weather had been unsettled for a few days, so the sight of a fine frosty morning made us hurry to such an extent that we were well on the way down the valley before we were fully awake. Just before reaching the drowsy village of Satarma we struck off to the right, despite the evident remonstrances of our porter, who could not speak any language except a curious local *patois*. Marching boldly across the slopes, we encountered a wealth of bloom: sweet-smelling violets, delicate pansies, forget-me-nots, and other beautiful flowers, though fragrantly reminiscent of "dear old England," were crushed in profusion beneath our disrespectful hobnailers. Then arose a commotion in one of the gloomy chalets down

below, and the strident tones of a wrathful and tempestuous human voice were wafted up to us through the still air. No knowledge of the language was necessary to inform us that we were thoughtlessly trespassing amongst the hay-grass; on the return journey that same evening we calmed the troubled breast with appropriate *pourboire*.

After this lesson in "short cuts" we traversed across and upwards, noticing meanwhile the tell-tale tracks of a great avalanche. One of the late winter storms on the heights had dislodged huge masses of snow and ice, and their remnants had torn their way thus far downwards with irresistible force. It was indeed a scene of the wildest desolation, for hundreds of giant pines had been either uprooted or cut clean off at the base of their stems as if by some gigantic shears.

Higher up and just below the rocks we observed four chamois, two parents and their small fry, galloping across the snowfield below the Col de Zarmine. The sight was as pretty as it is rare. Arrived on the lower rocks, ice and snow were present almost everywhere, and 1,500 feet below the summit we put on the rope. We made a way of our own up to the small depression below the final, shapely rock pyramid, and were soon engrossed in the intricacies of severe crag-climbing. Up slippery and narrow chimneys we squirmed in orthodox style, over slippery slabs we crept with doubtful elegance, thrilling corners were negotiated with our lives, and little else, in our hands; until eventually we stepped out on to the snowy summit and greeted many old friends amongst the glorious array of Alpine giants.

The Matterhorn and the Dent Blanche were there on our left, as we glanced back over the complicated mass of the Arolla peaks. Part of the Mont Blanc range rose dimly away in the yellow veil of distance, with hundreds of lesser but more interesting peaks between.

Under later summer conditions it is usual to descend the Petite Dent de Veisivi by a splendid ridge leading to the Col de Zarmine. The main interest of this route is at the point where a fine tower rises from the arête, and calls for skilful rock-climbing in its negotiation. We had wasted much of the day in photography, and as time pressed we returned by the same route.

During the descent some of the loose, new snow was in a dangerous condition: it slid away in great masses, and steps had then to be cut with the ice-axe in the bare ice-slope. The delay was aggravating; but after regaining the easy rocks, we quickly scrambled down them to the long snow-slopes below the peak.

There we sat in a row, one behind the other, and, clutching one another round the waist, glissaded at a tremendous pace down a thousand feet or more to the level snows, within sound of the tinkling cow-bells of the Alpe Zarmine.

Another climb, of a different nature, was that of the Pigne d'Arolla (12,471 feet), the highest popular peak thereabouts. We started about 1 a.m. on a beautiful frosty night, and for an hour or so marched up the moraine by the light of our candle lanterns, until high enough to catch the rays of the moon, which shone above the serrated ridge of the Dent Perroc, on the opposite side of the valley. We reached the upper glacier, and tied on the rope just as the stars began to pale on the eastern horizon. Thence onwards it was dull work trudging over apparently endless snowfields, and the only break in the monotony came when the weight of the heavier members of the party made them suddenly break through the hard crust of snow. On the upper end of the Glacier de Pièce we became involved in difficulties through keeping too much to the right. There were some striking crevasses with overhanging upper lips to negotiate just before we gained the summit ridge. In one particular case our leader had to mount on to the shoulders of the second climber before he could establish himself safely above the overhanging lip of ice. The last man of our party, who was carrying our heavy luggage, performed some amusing dangling feats here; and as we had to haul him up bodily on the rope, he became rather roughly wedged under the lip of the crevasse. Of course, he used much forcible language, of which we up above only heard sufficient to make us understand that more hauling was required. The harder we pulled the tighter he jammed, until a sudden inspiration made him kick out from the ice, and we landed him up feet foremost.

On the summit a biting north wind made things un-

comfortable, so we only stayed long enough to take a few photographs, whilst our hero of the crevasse consoled himself with the contents of a small suspicious-looking bottle. It is best to try to forget the descent, for the heat of the sun's rays had made the snow in very bad condition. For nearly four hours we ploughed our laborious way downward by the Pas de Chèvres. Knee and often waist deep in the soft snow we toiled along, with the hottest sun we have ever experienced beating down unmercifully from a cloudless sky. The memory of that descent is like a bad dream. The Pigne d'Arolla in the early summer is not a climb to recommend to one's best friends, for, in mountaineering parlance, it is simply a snow-grind; and the only things in its favour are its height as a view point and easiness of ascent.

A few days later the morning sun saw us *en route* for the Aiguille de la Za, and old Sol took advantage of our late start to render the snow so soft as to make our passage of the lower glacier both dangerous and tedious. We had arranged to spend the night at the Bertol Hut for the sake of photography, and climb the peak next day. There were several large snow-covered crevasses to negotiate, and our heavy porter, with a great load of luggage on his back, got an idea into his head that he would explore the interior of one of these. He fell through the soft snow so suddenly that two of us were very nearly pulled in after him. Being next to him on the rope, I involuntarily had an appalling view into the blue-black depths of the crevasse where the unfortunate porter dangled, yelling for help in German, French, and English simultaneously. To extricate him, we found it necessary to lower a spare rope, by means of which he was able to raise himself by his hands, whilst we hauled at the other rope round his waist.

We eventually reached the hut late in the afternoon, with all our garments more or less soaked by the wet snow, and our faces badly burnt by the hot sun reflected off the new, bright surface. Most of us will never forget that visit to the Bertol Hut; some of the living pictures are indelibly stamped on the memory. The Swiss porter seemed oblivious of the discomfort of wet garments, but the rest of us took a sun-bath in our "birthday clothes," whilst our garments were hung out to dry in the warm sunlight. In due course we conformed to

the laws of decency, and donning one scant under-garment, dinner was partaken of in this form of evening dress. The cooking operations were skilfully performed by one of the party, who usually undertook the duties of *chef*. All went well until he began to cook some tinned sardines, by throwing them into the flat frying-pan, which he had previously made almost red-hot. Then we had a lively time dodging the flying scraps of scalding hot sardine, and a mad rush ensued for the door.

This Bertol Refuge is a wonderful triumph in the way of Alpine hut construction; it is generally known as one of the highest and best equipped of such erections in Switzerland. The situation is an ideal one, for it stands nearly 11,200 feet high, on a small island of rock which peeps out of one of the biggest glacier systems in the Alps. On each side of the hut there are sudden drops of 500 or 600 feet on to the glacier, so that persons addicted to sleep-walking should scarcely pay a visit there.

Despite our adventures, we were up at three o'clock next morning, and searching outside in bright moonlight for our clothes, some of which were frozen stiff. Getting into them was no easy matter, but in an hour's time we had dressed, breakfasted, lit our lanterns, and descended to the glacier by the rope which had been fixed to the rocks to facilitate the approach to the hut. A thick, grey mist now shrouded the glacier, so we tied on the rope and moved slowly and carefully in the darkness across the vast snowfield *en route* for the Aiguille de la Za. We had neither map nor compass, only a vague idea of the whereabouts of our peak; but that peculiar indefinable mountain instinct, often vulgarly called the "bump of locality," was strongly developed in some of our party. In two hours we skirted dark, fearsome crevasses, climbed up slippery, icy couloirs by steps cut in the hard ice, scrambled up loose rocks where any dislodged fragments caused the still morning air to be desecrated by uncomplimentary language from those below; until the pall of mist covering all the higher world became tinged with the orange flush of sunrise. A slight breeze came up with the dawn, and as we scaled some easy rocks leading up to a striking snow ridge, we had glimpses of our surroundings through great rifts in the mist. The Za stood out above the clouds half a mile ahead, and in shape resembled a

stupendous church spire. We strode out on to the narrow, snow-covered ridge at the base of the Aiguille as the sun broke through the quickly vanishing vapour, and the view was wonderful.

Five thousand feet immediately below on our left lay the sleeping valley of Arolla, still filled with the mysterious blackness of night; whilst in the opposite direction the icy slopes of the Dent Blanche glittered in the dazzling sunlight. As we walked along the ridge, our shadows were cast far out on the thin mist-wreaths which glided up from the valley, and, ever and anon, the Spectre of the Brocken flickered faintly on the darkness.

Now came the interesting part of our expedition, and we were soon hard at work on the last 1000 feet of rock. Some diminutive upright cracks, filled with ice in their innermost recesses, gave access to the lower slabs up which we crawled carefully for 200 or 300 feet, until a large overhanging buttress stopped further upward progress. We had to traverse to the left under this buttress, and, being slightly iced, this proved the most difficult part of the ascent. There were plenty of holds, but all were small. They gave us an erroneous idea that we were suspended over space by one or two fingers at most, and probably one nail on the toe of the boot. At the end of the traverse there were some loose spikes of rock to cross in gaining the ridge, and the mode of motion adopted was that of crawling on all-fours over those, like a cat crossing a muddy road. The view vertically downwards from the ridge was singularly extensive, but we did not stop to contemplate it. Steep slabs for some distance then led us into some little chimneys up which we wriggled, and so gained a broad rock platform below the summit. Here we left our luggage and the porter, whilst we tackled the final part successfully. Someone suddenly remembered that it was Coronation Day, so with our heads uncovered we sang the National Anthem, and thought of the festivities in the distant homeland. Before we left the summit the cairn was adorned with a handkerchief of brilliant hue, which floated proudly in the breeze 12,050 feet above the sea. Three days later we heard of the disappointing events in England, but did not



Abraham

THE AROLIA VALLEY AND ITS PEAKS
FROM THE PETITE DENT DE VEISVI

trouble to repeat the expedition and dismantle our improvised emblem of rejoicing.

We started down almost immediately, following the same route over the rocks on the upper part, but lower down we continued straight across a short ridge of rock to the *col* between the Aiguille de la Za and the Doves Blanches. Continuing over the shattered ridge of the latter peak, we eventually descended a subsidiary ridge which led down to the *col*, which lies north-west of the Dents de Bertol. Here the snow was horribly soft, and progress grew wearisome. Tremendous avalanches were falling from the precipices of the Doves Blanches on our right, but we kept well out of fire, and eventually reached Arolla as the evening shadows crept down from the snowy peak of the Pigne.

A few days later we again visited the Alpe Zarmine, and thence an easy walk led us up to the well-known *col* of that name between the Grande and the Petite Dent de Veisivi.

Seen in the gloom of early morning with a light haze all round, the view of the Dent Blanche rising like a great grey ghost draped in flowing robes of white was singularly impressive, the more so when the sun peeped over the distant ridges and darted his slanting roseate rays athwart the tremendous, couloir-seamed slopes of the Grande Dent on our right.

It had been our intention to ascend this peak from the *col*, but the attractions of the be-pinnacled ridge of the Petite Dent proved irresistible. We followed this wonderful little *arête* over several small gendarmes, but at several places it became necessary to traverse slightly on to the Ferpècle side on account of the unwelcome presence of new snow.

In about an hour's time we reached the foot of the Great Tower, which is so effectively seen from Arolla. Another hour was spent in negotiating the somewhat icy rocks in the chimney and the fine upper slabs which led to the top of the obstacle. On the farther side of the Tower the route possessed no difficulty, and we soon scrambled along as far as the narrow Crib-Goch-like ridge, which we

had inspected from the summit on a previous day, Quickly retracing our steps we passed the *col* and trudged up the steep, snowy breast of the Grande Dent; the rocks, probably on account of their sunless aspect, were yet scarcely visible through their thick covering of the previous winter's downfall. Unfortunately our interesting experiences on the neighbouring peak made the simple walk seem rather dull, and I must confess that we were glad to give up the laborious ascent without actually touching the summit.

Before we had regained the Alpe Zarmine the sky had become thickly overcast; old Jupiter Pluvius put in an unwelcome appearance and chased us down the slopes to the shelter of the woods. He kept us in restraint for the next few days at Arolla; the only passably fine morning was spent in an unsuccessful dash for the Dent Perroc, which stands on the long ridge about midway between the Grande Dent de Veisivi and the Aiguille de la Za.

A few days later we made our last serious expedition. This was up the Aiguilles Rouges, which is usually considered the most difficult of the Arolla climbs, and the icy conditions made our success uncertain until the very last. Our greatest trouble was to find the proper way across the long slopes to the foot of the rocks. Those who attempt this course without guides would be well-advised to carefully plan out the route from the slopes of the Dents de Veisivi on the opposite side of the valley.

The omission to do this resulted in such a waste of time in the early morning, that our intention to cross over all the peaks was frustrated, and we had to be satisfied with the Central and North Peaks. The famous Cock's Comb Ridge over the Southern Peak was left for another occasion. We reached the *col* between the two former summits after a long scramble of nearly 1,000 feet up easily inclined slabs. Then turning to the left the highest or central peak yielded the most exciting climbing encountered during that visit to Arolla. The rocks were steep, and the holds, which from all accounts are never aggressively conspicuous, were hidden under a veneer of flaky ice.

On the upper part a bitterly cold wind blew wildly along the ridge, and we were glad to retreat downwards on the lee

side of the crags. The weather grew gradually worse as we scrambled up the easy front of the North Peak, so we soon hurried back from the cairn to the *col*. Just as we clambered off the lower rocks a sudden change came over our mountain. The mists seethed and swirled beneath us and all around, heralding the snow-flakes, which, ere we reached the hotel had spread over the Aiguilles Rouges a wintry covering, beautiful to behold, but detested by climbers of the higher peaks. Then the weather broke down completely, and in a few days we bade farewell to this most fascinating of Alpine valleys.

Homeward journeys from the Alps are always tinged with regret, but happy days live long in the memories of most mountaineers, and the charms of Arolla ere long lure most men back again to its shattered ridges, snow-clad peaks, and rocky pinnacles.

It might be mentioned that the most enjoyable way of reaching Arolla is to approach it from Zermatt over the Col d'Hérens and Col de Bertol.

At the little hut on the latter *col* it may be convenient to end the long day's trudge, with the intention of climbing the Dents des Bouquetins next day. All the three peaks have been ascended from various directions, but the central one possesses a reputation for difficulty that will attract an experienced party.

Undoubtedly the most popular rock-climb at Arolla, as far as the expert is concerned, is the western face of the Aiguille de la Za direct from the valley. Mont Collon is also frequently visited, probably because it stands so prominently at the head of the valley. As a viewpoint it is inferior to the Pigne, and the ascent by the ordinary way over the Col de Pièce to the Col de Chermontane, whence the west-north-west ridge can be followed to the summit, is almost as uninteresting as that of its loftier neighbour.

In conclusion, it may be pointed out that Arolla is now usually visited by those making use of the High Level Route from Zermatt to Chamonix. In the days of the early discoverers it became known as the "Express Route"; the reason for this will be understood when it is said that those enterprising pioneers often travelled from Zermatt to Chanrion in one day, and across to Chamonix in correspondingly quick time.

In these more comfort-loving times five or more days are generally required for the whole tour. Arolla is generally approached by the Col d'Hérens and the Col de Bertol. Next day it is usual to cross over the Pas de Chèvres to the Col de Seilon, possibly climbing Mont Blanc de Seilon *en route*, and then down to Fionnay in the Val de Bagnes. The Grand Combin may be included in the next two days' programme by sleeping at the Panossière Hut, and traversing the mountain to the Col des Maisons Blanches, whence the descent to Bourg St. Pierre is easy.

The route thence to Chamonix may be varied considerably, but Orsières and the Col du Tour provide the quickest means of approach. However, most mountaineers will prefer to linger during their passage of the High Level Route; and justly so, for their way lies through the heart of the grandest scenery in the Alps. A month's holiday could be pleasantly spent in the undertaking, and the splendid series of recently erected huts in the Grand Combin district enable that almost deserted region to be thoroughly explored.

CHAPTER XXIV

THE ITALIAN ALPS—THROUGH THE GRAIANS

“So went he through the night
Until the dwellings of man-folk were a long while left behind,
Then came he unto the thicket and the houses of the wind,
And the feet of hoary mountains, and the dwellings of the deer,
And the heaths without a shepherd, and the houseless dales and drear.”

WILLIAM MORRIS

AS we look forth upon the world we cannot avoid noticing, the more so in these days of overcrowded city population, that there is a vast striving after a more natural condition of life. “Back to the land” cry the theorists, but the quest of the shekels, glory, and fame still goes on; the pleasures of the world harmonise but harshly with the simple life. At least once a year most men take a holiday, and of recent years the majority have begun to realise that the fresh air and freedom of the open country is their natural element.

There is still a trace of the savage in us all. We may shoot, fish, walk, climb, or even play golf for what is called a holiday. But, after all, is not the desire for these and the pleasures they bring due to the stirring within us of the primæval ancestor, who is roused for awhile from what might be called the stupor of civilisation to resort to his ancient freedom of life? Is not this one of the greatest delights of the mountaineer? What other sport takes man so far out of the routine of the “daily round, the common task,” and brings him into such close and complete communion with Nature in her fiercest as well as her simplest moods?

Thus, when Dr. Johnson in his famous Dictionary defined us as barbarians and savages, it is possible that some of us may find comfort in the thought that there is no disgrace in what may after all contain some truth.

We may almost say that every healthy-minded man has a tinge of the barbarian lurking in his being. Now and again he must yearn to get away from the struggle of city life to where, at least, he can breathe the untainted air of heaven amidst the waste places of the world, where his food is simple but nourishing, his recreation the song of the wind through the trees, the chorus of mountain streams, and, above all, the charm of that secret converse with the everlasting hills which no man can adequately express in words.

Not very long ago a great mountaineering authority divided the followers of the sport into two main classes, the centrists and excentrists. The majority belong to the former class, and I must confess that I do so myself; but, nevertheless, the fact must not be forgotten that certain districts lend themselves especially to the latter kind of mountain travel. This applies markedly to the districts of the Graians. In this chapter I propose to deal with an excentrist's expedition through that range; and it will be apparent that the life is somewhat rough and primitive compared with the Capuan luxuries of Zermatt or other great centres.

But it must be obvious that to wander amongst these deep valleys and over these soaring peaks, scarcely knowing "whither thou comest and whence thou goest," possesses a fascination all its own. At the end of such a holiday, if strenuous rock-climbing is indulged in, and the luggage is so cut down in weight as to demand even the sacrifice of the tonsorial outfit, the climber will probably present an appearance like unto the most "barberless" barbarian.

A little topography relating to this comparatively unknown district may be acceptable. From the Little Saint Bernard Pass to that of the Mont Cenis the main chain of the Alps runs in a tolerably direct line from north to south for about 40 miles. It forms throughout the political boundary between France and Italy, and is the backbone of the extensive mountain mass lying between the two passes just mentioned. This chain is the Central Graians, the highest peaks of which are the Pointe de Charbonel (12,326 feet) and the Grande Sassi re (12,323 feet). This central group is joined to the Eastern Graians, with which, by the way, as mountaineers we shall mostly be con-



Dr. Wigner

A REMARKABLE SNOW-CORNICE ON THE ITALIAN ALPS

cerned, by the Col de Nivolet. These peaks are situated wholly in Italy, and their culminating point is the Grand Paradis (13,324 feet), which is the highest ground, or rather snow, in the Graians.

The Western Graians or the Alps of the Tarentaise are situated in France, and they are connected with the Central Group by the Col d'Iseran. This latter group is most accessible direct from England, and some may prefer to use it as a stepping-stone to higher things. In this case it is probably the best plan to make for the village of Pralognan, a beautifully situated holiday resort in Savoy, by way of Paris, Chambéry, Moûtiers—Salins, and Brides les Bains. The final stage was formerly by diligence, but a service of motor-cars now makes it possible for a traveller to dine at Paris one evening and lunch at Pralognan next day.

From Pralognan, the highest peak in this group, the Grande Casse (12,668 feet) is easily accessible. This is best attacked from the Refuge Félix Faure, which stands on the Col de la Vanoise. The main feature of the Grande Casse is an interesting snow arête on the upper part, which leads right to the summit of the graceful peak. The final section is steep, and narrow enough to recall to memory the well-known eastern ridge of the Weisshorn, though the surroundings are not quite on such a large scale. Prolonged step-cutting is frequently necessary, but the view from the top is a worthy reward for all the labour.

It will be observed that one of the greatest charms of the Graians is their situation. Lying almost midway between the vast ranges of the Pennine Alps on the one hand and the French Alps of Dauphiné on the other, the views are superb, of which more later. At present we must make our way into Italy, and to do so it is advisable to return to the Refuge Félix Faure.

As soon as daylight permits next morning, the Vanoise track should be followed down to the châteaux of Entre Deux Eaux, and there the way turns up the Valley of the Leisse. After about three hours' walking up this, one of the wildest of Alpine glens, the Col de la Leisse is reached at a height of 9,110 feet.

On the other side the smaller Col de Fresse is crossed, and a pleasant descent leads over beautiful pastures to the village of Val d'Isère (6,066 feet).

The Hotel Moris provides the only comfortable accommodation in the district. The landlord claims descent from the clan MacMorris, and he seems rather proud of the fact that his forebears were exiled from Ireland in Cromwell's time. The old house is, like its owner's ancestral recital, full of strange and rambling passages. The hay-loft is close by, and the beautiful odour of the new-mown, summer's crop pervades the place.

It is well to be up betimes next morning, for it is a long journey across the border into Italy, and we may be tempted to explore some peak or other *en route*. Four o'clock in the morning would be a suitable time to start up the valley; and after half an hour's tramp on the hard road, it is a comfort to tread on the more yielding surface of the mule-track. This leads through a striking but somewhat gloomy gorge to the green pastures of Prarion, just below the glaciers which form the sources of the Isère. Hence a steep ascent of some grass slopes and a moraine leads up to the ice of the Galise Glacier, and a few minutes later the frontier line is reached at the Col de la Galise, 9,836 feet in height.

Whilst refreshing the inner man on this suitable halting-place, the little rock peak of the Pointe de la Galise (10,975 feet) will probably catch the climber's eye. It is comparatively easy of access from the *col*; an hour and a half's quick scrambling will suffice the expert for the upward and return journey.

Then the descent into Italy begins with a steep couloir, called the Grand Colouret; it is uncomfortably filled with crumbling rocks and débris. At the foot of this a little plain affords a respite from the mild excitement of falling stones; but the end is not yet, for the Petit Colouret is built on somewhat the same lines, and it has to be negotiated before the pastures are accessible. A little below its termination the direct route continues to Ceresole, while a goat-track on the left leads along to some châlets, where milk may be obtained by those who speak Italian; those who do not may fail to taste the wonderful flavour of the milk of these high Italian pastures; and, what is of more importance, they may be unable to learn the best way downward.

To reach the Val Savaranche it is usual to descend a short



R. Nevill

THE GRIVOLA AND THE GRAND PARADIS FROM THE SLOPES OF THE GRAND COMBIN

THE COL VALSOREY IS SEEN IN FRONT

way, and make for the mule-track leading from Ceresole to the Col de Nivolet, which lies in a north-easterly direction from the châteaux. But a short cut may be taken along another small goat-track, which leads up steep slopes until an upper plateau is reached, where a tempting stream meanders between banks gay with white cotton grass. The indefinite track vanishes amidst this mountain oasis; but turning off to the right and crossing a low ridge a well-marked mule-track is visible leading down from the Col de Nivolet, which is but a few minutes away. By the route described the well-known pass is scarcely an hour's walk from the chateau near the Petit Colouret. Two or three small lakes are passed whilst descending the gently sloping plateau on the Val Savaranche side of the *col*: a dip in their chilly depths will afford a welcome respite from the heat of the Italian sun.

The nearer distance of these bleak, Alpine uplands resembles in many ways some of the higher Scotch heaths and moors, and the similarity may perhaps be enhanced by the sight of what appears like a group of deer. Probably they are bouquetins or ibex; and though this animal is extinct in the rest of the Alps, it survives in the Graians, owing to the fact that it is preserved for the royal sport. The King of Italy has several shooting lodges in the district; one of these is passed during the descent.

Where the pastoral slopes dip steeply over into the Val Savaranche, it is well to rest on the brink of the crag and enjoy one of the finest views in the Graians, or even in all the Alps. Opposite towers the huge massif of the Grand Paradis with its attendant peaks, and the jagged ridge extending thence to the Grivola, which is presented in its shapeliest aspect. More than 1,000 feet below our halting-place the tiny châteaux of Pont repose amid the verdant pastures of the high Italian valley.

A well-engineered path zigzags down the face of the cliff, and half an hour's quick descent will enable the traveller to enter the portals of the little inn at Pont. This is a favourite centre with many English climbers. It is one of the highest hamlets in the Alps, and the mention of its height to the lay mind in England has been known to produce an unusual impression.

A climber and his wife on leaving for a holiday in Pont were giving instructions to their servant regarding the forwarding of letters. On being told that their destination was in Italy, and over 6,000 feet above the sea, the maid was so impressed that she stared in amazement and said, "Oh lor'! mum, mind you don't fall in!"

Let us now consider another way of reaching the Eastern Graians. The mountain wanderer who finds himself at Arolla, and grows tired of the results of its growing popularity, may be glad to know that the Italian Alps are within easy reach, and will afford him relief from the society small talk which sometimes pervades even the famous Valaisan resort of his countrymen and women. Of all the approaches to the Graians, that from Arolla is probably the finest.

With light rucksacks and the snow in good condition, it is not a very wearisome trudge to the top of the Col de Collon (10,270 feet). There the blue Italian sky may beckon the climber from his cloud-wrapt pass down over the short glacier into the wild glen of the Combe d'Oren. Thence after about eight hours' walking from Arolla, the little hamlet of Prarayé at the head of the Valpelline is reached.

If the party is composed of the orthodox number of three hungry climbers, they would till a year or so ago have taxed the resources of the little inn to the utmost. Meat was often scarcely obtainable, and climbers had to console themselves with a frugal meal of vermicelli and a gigantic omelette. This latter was a feature of Prarayé, as it was usually the only food to be had.

There was no electric light, and the room was probably illuminated by two flickering tallow dips, so that the whole experience formed a great contrast to the "flesh pots" of Arolla; but now a new hotel has been erected at Prarayé, and things may be more comfortable even though less picturesque.

Next morning it may be well to leave soon after daylight, and continue down the long valley past Bionaz and Oyace to the village of Valpelline. In the course of this descent of about 3,400 feet the track now runs through a green pasture by the side of the beautiful, light-blue water of the glacier torrent, now winds through a gloomy gorge above the tumbling stream, and, when the path is expected to become of an easier

gradient, it remorselessly mounts to a height of 1,000 feet above the valley, apparently for no other reason than that of affording a better view. In the noonday heat this may be somewhat temper-trying, but the woodland scenery is delightful, the more so in contrast with the sterner aspect of scenes at the higher level. Ere long the path slants valleyward, the pines gradually give way to the beeches and alders, the first walnuts appear, and finally lizards dart across the track and vanish in the chinks of the moss-covered wayside walls.

At Valpelline the mule-track ends, and a road sufficiently good to rouse the envy of the English motorist leads, after a two hours' hot tramp, into the ancient city of Aosta. There the twelfth-century cloisters of St. Ours, with their wonderful carved pillars, will afford a cool retreat from the blazing sunshine, and the triumphal arch of Augustus, built in 23 B.C., will interest most climbers, despite the fact that a sporting ascent of it would probably result in the Italian equivalent of being "run in."

However, the heat of these low Italian valleys is apt to become insufferable, and next morning it is advisable to drive along the road to Aymaville *en route* for Cogne. After an hour's drive the mountaineer will be glad to dispense with the unusual mode of locomotion, and betake himself to the steep and slippery paved mule-track which slants up to the zigzags of the char-road leading over to the Val de Cogne.

Now the road wanders round the shoulder of the mountain at a great height, next it dips down to cross the torrent by a picturesque bridge, then it mounts again and finally recrosses the stream at Epinel, where the valley soon opens out. Less than four miles further on, the road winds through green meadows and enters the village of Cogne.

This is the most important climbers' resort in the Graians, and it is situated at a height of 5,033 feet above the sea, in a delightful position where three valleys meet. The Hotel de la Grivola has recently been enlarged and improved; it affords comfortable quarters, and excellent views of the peaks, passes, and glaciers at the head of the beautiful Valnontey. The view from Cogne down the main valley is closed by a magnificent prospect of Mont Blanc, which serves as a natural barometer to the natives. If the Great White Mountain is

visible in all his splendour without a cloud, the sight means "set fair," and the thoughts of the expert mountaineer will probably turn to an ascent of the Grand Paradis.

From Pont in the Val Savaranche, previously mentioned in the approach to the Eastern Graians from the Tarentaise, the ascent of this, the highest mountain wholly in Italy, is comparatively easy. From Cogne an attack on the Grand Paradis should not be lightly undertaken.

In dealing with the choice of guides it may seem invidious to mention names, but first-class men are scarce at Cogne, and it will be useful to know that Clément Gérard is thoroughly acquainted with the difficult side of the peak, and, if necessary, he can be trusted to choose a suitable companion.

Before attacking the Grand Paradis it may be conducive to safety and success if some less ambitious course is taken, and there is no better peak for the purpose than that of the Herbetet. The same sleeping quarters are suitable for both ascents. About 8,000 feet above sea-level there is a hut which serves as an occasional night resort for the gardes-chasse of the King of Italy. By the side of this place there are two rough, doorless, stone hovels, and the little group is known as the Châlets de l'Herbetet. Note should be made of the fact that the key of the hut is kept by the garde-chasse in the village of Valnontey.

The Herbetet rises only about 4,000 feet above the châlets, so it is scarcely necessary to start before daylight. After about two hours' walking the rope may be called into use to cross the glacier to the foot of the east ridge, whose shattered crest rises grandly to the shapely summit. The rocks *en route* afford interesting climbing; some of the gendarmes will probably defy a frontal attack and cause the party to turn them on one side or the other. If the snow is in bad condition this may prove an exciting performance.

On a fine day the view from the summit is simply perfect. The great peaks of the Graians are in full view all around, and many an old friend may be visible on the horizon, including Monte Viso, the Dauphiné peaks, Mont Blanc, the Grand Combin, Dent Blanche, Matterhorn, and Monte Rosa.

The descent may be varied by taking at first to the rocks of the north ridge, and a few hundred feet lower a long snow

slope on the face gives access to the glacier, whence the huts are soon accessible. The time from the summit would be about three hours, and the whole expedition can be comfortably achieved in nine hours.

As night creeps up from the valley the blankets, which will probably have been brought from Cogne, are spread over a thin layer of straw in the corner on the floor of one of the doorless hovels. This may not seem a very suitable bed for those who intend to climb the Grand Paradis next day, but it is the usual mode of sleeping adopted here. Clément may slyly suggest that the way to Paradise is hard, certainly the beds are.

Not later than 4 a.m. next morning a start is made, after bidding adieu to the porter who has taken up our beds to walk down to Cogne. It is intended to spend the following night on the other side of the peak. The rope is put on about two and a half hours later to cross the vastly riven surface of the Glacier de la Tribulation. The name is remarkably appropriate, for to make a way through the intricate system of large and small crevasses will try the patience and skill of the best party. Some of the wider rifts have to be circumvented by devious routes, whilst others are crossed by means of snow bridges.

Perchance the gathering mists give rise to the remark from some of the climbers, that it would be a bad thing to lose one's self on this glacier; but Clément probably treats it as an old friend, and never hesitates as he leads his followers to the foot of a steep face of ice and snow, which is dimly seen through the clouds. There are several ways of climbing this side of the Grand Paradis; the route more to the left is generally followed, but we are now considering the ascent by the *grande pente*, which is not so frequently done.

Step-cutting begins at once, and continues up a difficult icy wall for about 150 feet. Here rocks may be encountered, and these are climbed for some distance until they merge into a steep snow-slope. More rocks soon intervene, but disappear all too quickly; the ascent of the snow face up above is apt to become toilsome, and under certain conditions dangerous. The slope is set at an uncomfortable angle, and if the snow is in its usual uncertain state at this point, the heavy man of the party

may find the steps breaking away under his feet. Great care has to be exercised continually; but the place is not one on which to linger, for icy séracs may be dimly discerned up above, overhanging the face. An avalanche would result in a speedier journey to the desired haven than is desirable. But the Grand Paradis is above, not below.

Steady and constant upward effort is desirable; halts are not permissible until glimpses of the skyline indicate that the apparently everlasting snows are, after all, possessed of a summit.

Higher up the snow usually becomes hard and firm. The spirits of the party rise accordingly, until they finally emerge on the top of the Grand Paradis. The view from the summit and the situation of the peak certainly justify the title; but perhaps the presence of a damp mist makes the party think otherwise. Under such conditions they may be glad to scramble down the simple rock ridge from the top, which leads to the easy snow-slopes on the Val Savaranche side of the mountain.

Two hours later they may be basking in hot sunshine on the moraine, where a path is soon struck which leads to the famous Victor Emmanuel Hut (9,105 feet). The old woman who has been placed in charge of it by the Italian Alpine Club has always a kind reception for the mountaineer; in fact, he may do worse than accept her hospitality for a few days in order to visit some of the surrounding summits. The altitude and convenient situation of the hut make many of these accessible without excessive exertion.

Some of the smaller peaks to the south will attract the rock-climber; the Punta del Broglio, with its four sharp pinnacles, is the best of these. The most southerly point is the highest, 11,336 feet, and the traverse of the Punta from a northerly direction will provide a good day's climbing.

Another interesting expedition can be made to the neighbouring peak of the Becca di Monciair (11,628 feet). This picturesque peak is reached from the Col du Charforon after crossing the Moncorvé and Monciair Glaciers; if a longer day is desired the Charforon may be climbed as well.

As an easy day's comparative rest it is a simple stroll to the top of the Tresenta (11,841 feet) by way of the Col du Grand Paradis. Considering its height the view is



Vittorio Sella

A VIEW FROM THE GRAND PARADIS SHOWING THE GRIVOLA

almost the best in the vicinity. On a fine day there is a magnificent prospect across the Piedmontese plain, with the windings of the Po and the Maritime Alps and Apennines behind; Turin can also be plainly seen, and with the naked eye it is even possible to distinguish the Superga with its monument.

The Pointe de Ceresole (12,379 feet) may be conveniently traversed on the way back from the hut to Cogne. The summit can be under foot after about three hours' quick walking from the hut by way of the Col du Grand Paradis. This is the depression just south of the highest peak of the Graians, and when it is reached the Noaschetta Glacier is but a few feet away. There it is usual to put on the rope to cross the glacier, and soon take to the final rocks of the Pointe de Ceresole. On the other side of the peak some easy rocks and a snow arête lead down to the Glacier de la Tribulation. The rest of the day can be enjoyably spent in making a way down the ice, and then wandering along the beautiful valley of Valnontey to Cogne.

It is scarcely advisable to make a book on mountaineering a climbers' obituary; but the accident to four well-known English climbers on the Grand Paradis deserves mention, the more so as misleading statements have appeared regarding the details.

The party consisted of Messrs. W. G. Clay, L. K. Meryon, T. L. Winterbottom, and the Rev. W. F. Wright, and they were spending a fortnight's holiday making guideless ascents in the Graians. On Tuesday, the 30th of August 1904, they left the Victor Emmanuel Hut intending to cross the Grand Paradis, and thence traverse, in a northerly direction, over the summits of the Petit Paradis and Becca de Montandeyné to Cogne. They reached the Grand Paradis early in the morning and descended the north arête to the Col du Petit Paradis, after continual step-cutting on alternate sides of the ridge, but generally near its crest. Other parties saw them at intervals, and their friends, who awaited them in the neighbourhood of Cogne, watched their movements through a glass. After reaching the Col du Petit Paradis their subsequent movements are a matter of conjecture. It is generally supposed, and traces would indicate this, that

they went some way up the arête towards the summit of that mountain. Other parties climbing in the district said that the rocks were in very bad condition; and probably on this account, and because the weather became threatening, they turned back in their tracks. They appear to have begun to ascend the north arête of the Grand Paradis and to have got some distance up on the western side, using their old steps, which were cut in hard ice. Beneath them was a sheer ice-wall nearly 2,000 feet high, and a serious slip occurring under such circumstances would place the whole party in a hopeless plight. All that is known is that on the following Friday, three days after the accident, their bodies were found on Lavaciù Glacier below the ice-wall, with the rope intact, and it was evident that all were wearing crampons at the time of the accident. The cause of the catastrophe will never be known. Suggestions have been made that crampons should not be worn whilst negotiating ice steps in such a situation, and it is certainly a fact that many amateurs place too much reliance on this kind of equipment. There is a certain angle of ice which even crampons refuse to grip safely, and some practice is required before this can be judged instinctively.

All visitors to the Graians are impressed by the appearance of the bold peak of the Grivola, which has been stated to be "to the aspiring mountaineer the grand object of a visit to Cogne."

If a start is made early enough in the morning, say at 2 a.m., the climber, who is in that perfect training which usually prevails at the end of his holiday, may ascend the peak in one day direct from Cogne. As the Grivola is 13,022 feet above sea level, the day's work, or rather pleasure, entails a climb of nearly 8,000 feet, but the course throughout is too full of variety and interest to become monotonous. After a quarter of an hour's walk down the valley, the route lies up through the pine-woods for about 2,000 feet. Then it turns to the right and crosses a ridge to the Pousset Glen, where daybreak will probably enable the light of the lanterns to be dispensed with.

The miserable-looking Pousset Châlets, where some mountaineers pass a restless night *en route* for the peak, are

soon passed. Steep and stony slopes then ensue, until at the Col de Pousset, the Grivola, which has hitherto been invisible, comes suddenly into view, and the crossing of the Trajo Glacier demands the use of the rope. If new snow is in evidence the passage of the glacier may prove fatiguing; but the rocks of the south-east face are finally gained, and the excitement of their negotiation prevents the mind from thinking of other things. The Grivola has a bad reputation for falling stones; it has a habit of visiting rash intruders with that form of capital punishment much in vogue amongst the ancient Jews. This tendency is mollified if new snow is lying on the south-east face, and, unlike many peaks, the descent can be made more or less safely in the afternoon. The rocks are not possessed of serious technical difficulty, and after two hours' scrambling the summit should be within hail. Under certain conditions of the snow the return to the glacier can be made in an hour down a long, open couloir; this saves time to the extent of nearly an hour.

Some of the remoter peaks of the Graians can be explored from the Piantonetto Hut (9,141 feet), which is reached after a seven or eight hours' walk from Cogne by way of the Col de Monei. The climber passes through some of the wildest scenery in the district, and the bouquetins and chamois seem to revel in the vast solitudes.

The hut is situated on a grassy shelf at the head of a lonely valley, and, if sufficient food and sleeping blankets are carried up from Cogne, three splendid days can be spent on the surrounding peaks.

The best of these are the Tour du Grand St. Pierre, the Roccia Viva, and several of the smaller summits also provide excellent rock-climbs. However, none but the hardest and toughest-skinned of mountaineers will linger long at the Piantonetto Hut; its tiny inhabitants are exceedingly voracious, and unless the weather is perfect, the keenest enthusiasm will be cooled by sleeping out on the rocks at this altitude. Neither do Alpine holidays last indefinitely, and this may also induce the wanderer to return to the comparative comforts of Cogne.

The homeward journey may be begun by walking down the whole length of the beautiful Val Savaranche until vine-

yards, highroads, carriages, heat, and civilisation are encountered at Villeneuve in the Val d'Aosta. There it is possible to cross the Great St. Bernard into Switzerland, and thence to Paris, or drive to Courmayeur. Those with a day or so to spare will probably adopt the latter course, and walk up to the hut on the Col du Géant. Next morning they may pass down the long Géant Glacier to Montanvert and Chamonix.

This provides a fascinating finish to the holiday, and the climber will travel across the green plains of France with a fixed determination to return next season to the Great White Mountain and those glorious aiguilles, the sight of which has cheered his long journey amidst the snow and ice-world of the Mer de Glace.

CHAPTER XXV

THE FRENCH ALPS—DAUPHINÉ

“To sit on rocks, to muse o’er flood and fell,
To slowly trace the forest’s shady scene
Where things that own not man’s dominion dwell,
And mortal foot hath ne’er or rarely been,
To climb the trackless mountains all unseen.”—BYRON

IF Switzerland is the Playground of Europe, the mountains of Dauphiné may be considered the special retreat of the Gallic mountaineer. Mont Blanc would certainly seem to possess superior attractions, but though Frenchmen justly claim the “loftiest mass in Europe” as their property, the joy of entire possession is disputed by both Swiss and Italians, as well as by the cosmopolitan crowds who monopolise the Chamonix slopes. But there is nothing of this in Dauphiné; except for a few parties of Englishmen, the natural owners of the mountains have them to themselves.

It may be urged that they have been somewhat slow to avail themselves of their privilege. Englishmen have played a comparatively large part in the discovery that the Dauphiny Alps were worthy of the mountaineers’ attention. That indefatigable explorer and pioneer, Edward Whymper, was one of the first to realise this, and his expedition with Horace Walker and the late A. W. Moore may almost be regarded as the inauguration of climbing in that region, though Mr. F. F. Tuckett had thoroughly explored Mont Pelvoux two years previously, and some hunters had gained the top of the central Aiguille d’Arves as early as 1839. With the notable exception of the Meije, English parties, strange to say, have made the first ascents of most of the principal Dauphiny peaks. Continental climbers often followed with the second ascent, and christened the summit with their own names. I well remember

a story told by the late R. Pendlebury of the two Frenchmen who followed his route up the Pic sans Nom, and inflicted a real jaw-breaking name on the inoffensive Pic. Fortunately the original name survives.

French climbers are, as a rule, careful and methodical in their manner of climbing, and this probably accounts for the remarkable scarcity of serious accidents in Dauphiné. Doubtless the foresight and skill of the guides are also largely responsible for this, and when it is remembered that they earn the bulk of their daily bread on such difficult peaks as the Meije and the Ecrins, the record is all the more wonderful. The number of fatal accidents to properly guided parties since 1860 could, I believe, be counted on the fingers of one hand.

The Dauphiny Alps possess one great advantage over many ranges in that they form one compact central mass, which can be most conveniently visited from the one centre, which is known as La Bérarde.

The journey from England is best made by Paris, Lyons, and Grenoble. At this latter place there is a flourishing connection of the French Alpine Club known as the Société des Touristes du Dauphiné, who control the climbing interests in Dauphiné wisely and well, both as regards the huts and *tariffs des guides*.

From Grenoble the railway is taken for a few miles to Vizille, whence a steam-tram runs as far as Bourg d'Oisans, and then about six hours of rather monotonous transit by diligence or coach will land the climber in the shadow of the mountains at St. Christophe. This is the home of the best, and worthily famous, Dauphiny guides. St. Gaspard would almost seem a more suitable name for the hamlet that has sheltered so many faithful guides of that name. In the records *des premières ascensions*, the name of Pierre Gaspard almost invariably appears, especially in those of the more difficult variety. It is one of the privileges of the district to have a chat *en route* with old Pierre, who, though nearly seventy years old, was climbing hard during all the season of 1906. His sons, Maximin, Casimir, Joseph, and Devouassoud, are worthy "chips off the old block." This latter figure of speech once puzzled Joseph, who is the well-known guide resident at Wastdale Head during the "off season." He took this remark as some reference

to his powers of step-cutting, and said, "Ah, yes! I cut steps with the big chips, they last old till we come down again!"

There are other capable guides in the Dauphiny Alps; for instance, the members of the Turc family, who also reside at St. Christophe, the Rodiers at La Bérarde, and the Pics and Louis Faure, as well as others, at La Grave.

Not many years ago it used to be possible to engage the best guides at such low rates of tariff as from twelve and fifteen francs per day, but nowadays the usual daily fee would appear to be from twenty to twenty-five francs. This could scarcely be called excessive, if all the peaks were included, but those who attack the two best mountains in the district, the Meije and the Ecrins, are also asked to pay the special tariff for these. As this amounts to 130 and 85 francs respectively, many climbers find it preferable to make no engagements, but pay a separate tariff for each excursion.

From St. Christophe a good mule track leads to La Bérarde. The geographical peculiarities of this mountain region will soon be apparent. The ranges are cut off by numerous narrow valleys, branching and twisting away in almost every direction; and this adds vastly to the difficulty of gaining a correct idea of the situation of the various summits. It is a country of sudden, but none the less charming, surprises. As the traveller makes his way along the bed of the deep valley from St. Christophe, with only the brawling glacier torrent stirring the echoes of the steep cliffs on either hand, he is almost unprepared for the more open prospect near the tiny hamlet of Champhorent. It is there that he will first realise the grandeur of his surroundings. On the right stretches the verdant Val de la Lavey, with the rocky crest of the Pic d'Olan rising grandly at its head over the lower aiguille, and the Glacier des Sellettes hiding their north-eastern slopes with its icy curtain.

Beyond Champhorent the main valley trends unexpectedly to the left, and straight ahead that magnificent monarch of the Dauphiny Alps, the Ecrins, thrusts its jagged summit of snow and ice into the sky.

Gradually the straggling pine trees become scarcer, until at La Bérarde, which lies too much under the highest important peaks, the outlook is somewhat uninteresting. Unlike some of the neighbouring valleys, vegetation is here stunted

and scanty; the usual Alpine outlook on forest-clad slopes is replaced by the view of long, dreary stretches of stones and débris.

In the early days, the accommodation at La Bérarde consisted of a miserable hovel, infested by unclean insects and other unwelcome companions. No traveller who was really alive to what it meant to be alive in another sense, used to sleep in the inns of Dauphiné. They might have attempted to do so, but recourse was generally had to a neighbouring chalet or even the "cold, cold ground" outside. It has been said that the inventor of insecticide powder came from Dauphiné. However, these things are now quite changed, and the new hotel is a model of cleanliness and comfort. It stands over 5,700 feet above sea-level, at the point where the Vallon de la Pilatte and the Vallon des Etançons unite to form the main valley of the Vénéon. Despite its dull surroundings, it is one of the most conveniently situated mountaineering centres in Europe. The season extends from June to the end of September, and unlike other Alpine districts the best climbing conditions frequently prevail in the earlier month.

The Tête de la Maye (8,275 feet) may be considered the Gorner Grat of La Bérarde, and the walk up to this most favourable view-point can easily be accomplished in two hours' time.

The maps of Mons. H. Duhamel are practically the only ones of any service in Dauphiné. They are conveniently issued in pocket-book form, and on the top of the Tête de la Maye they help to elucidate the topography of the surroundings.

It will be noticed that almost all the central peaks are arranged in a uniform horse-shoe shape around La Bérarde. On the north-east the magnificent rocky mass of the Meije (13,081 feet) demands the bulk of attention. Except for the comparative lack of tragedy, it is one of the most remarkable mountains in Europe. For years it defied the most expert mountaineers of many nationalities; and not until long after the Matterhorn and other Alpine giants had yielded, did the Meije suffer defeat.

In 1877 Mons. E. Boileau de Castelnau, with the Pierres Gaspard, senior, and junior, first found the way up its hitherto impregnable precipices. Their original route is, for the main



LES ECRINS FROM THE TÊTE DE LA MAYE
SHOWING THE GLACIER DE LA BONNE PIERRE

part, that followed at the present time, and the difficulty of the mountain is further accentuated by the scarcity of variations made in more recent times.

From the Tête de la Maye, the highest point is seen to rise on the left hand or more westerly end of the long, bepinnaled summit ridge, whilst the Pic Central (13,026 feet) forms the culminating tower at the opposite end. The Pic Oriental (12,832 feet), which is seldom visited, though easier of access, occupies a less prominent position still farther to the east, and at the end of a somewhat lower and less broken-up ridge. These two latter summits were ascended some years before the highest peak was eventually reached in 1877, but the unmistakable, deep cleft, just east of the highest point, was not passed until 1885. This gap is known as the Brèche Zsigmondy. It was named after the two famous brothers Emil and Otto, who, with L. Purtscheller, without guides, made the first ascent of the Meije by this route from the east. Their traverse from the central to the western summit took nearly six and a half hours.

Not many days after this wonderful *tour de force*, Emil Zsigmondy lost his life on the south face of the Meije, almost within sight of his former triumphs. As this remarkable man was generally considered to be one of the most expert and daring of rock-climbing leaders, a few details of his last climb are worth attention. These were given to me by Joseph Gaspard, and they appeal strangely to those who have been accustomed to lead up difficult rocks.

The party was attempting to find a way up to the Brèche Zsigmondy from the conspicuous, snow-covered slabs, which extend almost all the way across the south face of the Meije and parallel to the ridge between the two highest summits. They had climbed some distance up the face, and, after great difficulties, Emil Zsigmondy had led up some almost holdless vertical rocks for nearly 80 feet. At this point he was unable to make further progress in any upward direction, and, after making the attempt, he also found it practically impossible to descend. At last, after warning those below, he attempted to come down, by using a doubled rope round a small excrescence. This proved fatal. The rope slipped off the rock, and he fell clear of the tremendous cliff down to the loose rocks on the

Glacier des Etançons. His brother had the rope secured round an outstanding pinnacle, and, as no Alpine rope could stand such a strain, the rope broke when the crucial moment came. Otto Zsigmondy was holding the rope with one hand at the time, and his thumb was torn away with the force of its breaking rebound. I believe that no other parties have yet attempted to reach the Brèche Zsigmondy up the south face of the Meije.

As this is at once the best known and most difficult of the higher, outlying Alps, a condensed description of the ascent may prove interesting. The way from La Bérarde follows along the bed of the Etançons valley amidst scenery of the most savage grandeur. The climber will, as he follows the rough path, hour after hour, realise the well-known fact, in connection with mountaineering in Dauphiné that the journeys up to some of the huts are uncommonly long and tiresome. The passage over the rough moraines will try both his temper and the lasting powers of his nailed boots.

But the striking views of the impregnable, impending wall of the Meije straight ahead offer some consolation, and in due course some easy slabs are gained, which lead up to a short stretch of the Etançons Glacier. Beyond this, and in a recess which has been hollowed out of the solid rock, stands the Promontoire Hut, some four hours from La Bérarde, where the night is now usually spent. The hut can easily be located, because it is situated at the foot of the long, rocky promontory which descends in a southerly direction from a point west of the Grand Pic or highest point, and divides the Glacier des Etançons into two almost equal portions.

Next morning the rope is tied on in the hut, and the climbing begins at once on the great buttress which stretches above it. The ascent for an hour and a half or more is often made by candle-light, so it may be gathered that the early difficulties are not serious. Half an hour later the broad terrace is crossed where Mons. Castelnau's camp was placed.

The terminal icicles of the small Glacier Carré are soon visible directly above, and at this point it is most important to bear away to the left in a westerly direction. The celebrated Pas du Chat, which consists of the passage below two curious overhanging rocks, is situated on the interesting arête, which

descends in a southerly direction from the little peak known as the Doigt. This is not easily identified from the Tête de la Maye or near La Bérarde, because it stands in front of, and is merged in, the higher crags of the Pic du Glacier Carré.

The Pas du Chat used to be negotiated on the west side by a sensational movement on the great cliff above the Brèche de la Meije. It is now avoided by following a long ledge on the east side, which ends in a steep chimney. In the upper part of this an iron *piton* on the left shows the route up a steep and engrossing slab, by means of which the arête is regained higher up. Ere long it is possible to descend to the surface of the Glacier Carré. If snow-covered, this provides easy walking up to the col known as the Brèche du Glacier Carré, between the final peak and the Pic du Glacier Carré on the left. Late in the season prolonged step-cutting is often necessary in mounting the glacier.

The crags of the Grand Pic look magnificent from this point, and provide fascinating scrambling on the south-westerly side until two open chimneys give access to a short but physically impressive arête just west of the overhanging summit rocks. This place is known as the Cheval Rouge, and it used to be the custom for parties to sit astride its painfully sharp "back," whilst the leader overcame the difficult, perpendicular obstacle ahead known as the Chapeau du Capucin. These uncomfortable tactics can now be obviated by following along a well-marked groove on the north side of the little ridge and parallel to it. A somewhat exciting but short traverse on the northerly face, followed by a return to the crest of the arête beyond the Chapeau, provides the last difficulty, and after about twenty minutes' "pleasant stroll," the highest point is within touch.

The view on a clear day is most comprehensive; all the monarchs of the Dauphiny Alps are visible. The array of peaks in the southerly direction compels attention, with the vast glacier-hung slopes of the Ecrins dominating the range. The rocky mass of the Pelvoux peeps almost modestly over its long, bulky eastern shoulder, whilst on its right the serrated crest of the Ailefroide looks every inch of its height. In front of these the jagged spires of the Roche Faurio, Grande Ruine, and Pic Bourcet recall the bizarre outlines of the Chamonix aiguilles.

In the distance and to the right of the Ailefroide, stretches the long Glacier de la Pilatte to the well-known *col* leading over to the Vallouise. Still further around and beyond the Val Vénéon, wherein lies La Bérarde, a complicated mass of summits stretches away, prominent among which are Les Bans, Les Rouies, and the picturesque massif of the Pic d'Olan.

The prospect northward across the long valley of the Romanche lying at the foot of the Meije, with the pointed Aiguilles d'Arves beyond, seems tame by comparison with the view in the opposite direction. Still the valley possesses a practical interest, for in it is situated the village of La Grave, and, as most parties traverse the Meije from La Bérarde to La Grave, the question of the descent seems a serious problem. The vast, icy, northerly slopes of the Meije are obviously impossible, and a glance along the terrific ridge in the direction of the Pic Central scarcely promises much better, for the impossible-looking abyss of the Brèche Zsigmondy dips forbiddingly down at the climber's feet. However, this is the only route available, and the descent into the Brèche proves more comforting in reality than in anticipation. At the only really dangerous section two *pitons* are fixed in the rocks, and the swing down these two vertical pitches can be safely made by means of a long, doubled rope.

In the Brèche the climber is confronted by the most difficult pitch on the whole mountain. It is necessary to climb from the gap up to the crest of the main ridge leading to the Pic Central, and a big repulsive-looking gendarme blocks the way. A flanking movement becomes necessary on the left or northerly side of the great cliff. The rocks are very smooth and steep; but a fixed rope nowadays facilitates the passage up a slanting crack. Even with this aid the ascent is severe, the more so if ice is present in the crack, and probably the most trying point is where the narrow cleft takes a turn again to the left across a sloping slab. The *mauvais pas* is about 80 feet high, and when the top of the ridge is regained, the difficulties are, comparatively, over. The climbing is still interesting along the crest of the shattered ridge over several towers to the top of the Pic Central. Sometimes it is possible to walk more or less easily along the excessively steep, snow slopes on the north side of



THE VIEW FROM THE TOP OF THE MEIJE—LOOKING DOWN AND ACROSS
THE BRÈCHE ZSIGMONDY TO THE PIC CENTRAL; THE PIC GASPARD IS
SEEN ON THE RIGHT

FROM A SKETCH BY THE AUTHOR

the ridge; but these are often unsafe, and frequently quite impracticable.

From the top of the Pic Central the way leads down a steep, icy slope where steps usually require cutting for about 60 feet until, after crossing the bergschrund, the Tabuchet Glacier is attained. Authorities have spoken of this as the easy Tabuchet Glacier, and under some conditions it affords simple walking away down to the open grass slopes above La Grave. Nevertheless, during many seasons it is probable that no party would be able to utilise this route, on account of the icy, and much-crevassed condition of the glacier. Such was the case in 1905, and parties followed a line east of the Tabuchet by the edge of the Bec Glacier and down to Villard d'Arène. A pleasant walk down the valley of the Romanche then leads to La Grave with its comfortable hotel and obliging proprietor.

A few years ago travellers used to find the accommodation poor and the residents most unreliable. An eminent explorer whose repose was spoilt by the "horsey" surroundings said there was "nothing stable about the place but the smell." Whilst at La Grave the climber may be tempted to delay his return to the central peaks and spend a few days exploring the Aiguilles d'Arves.

These three remarkable peaks which, from some points of view, bear a striking resemblance to the rocks of the Cobbler in Scotland, stand north of La Grave. They spring from an elevated ridge, which runs in the general direction of north to south, with the bulkier mass of the Aiguille de la Saussaz bounding them in the direction of La Grave. The southerly summit is most easily accessible from this centre by way of the Col Lombard, between the North Aiguille de la Saussaz and the South Aiguille d'Arves. There must be quite 1,200 feet of rock to be scaled from the *col* to the top, and the most difficult section is encountered about half an hour below the final ridge. This is commonly called the most difficult of these aiguilles.

The Central Aiguille d'Arves (11,513 feet) is the loftiest of the group, and its ascent is usually made up the splendid slabs and buttresses on its south-east front. The Northern Aiguille (11,155 feet) is seldom visited; but from Valloire or St. Jean d'Arves it gives a much easier climb than its two loftier com-

panions. But the ambitious mountaineer will prefer to return to the central group, and the most direct way from La Grave to La Bérarde leads over the Brèche de la Meije (10,827 feet). This is the conspicuous *col* which separates the Meije from its high but insignificant-looking neighbour, the Râteau (12,317 feet). This is not much climbed; it suffers neglect by its vicinity to the grandest peak in Dauphiné. It may be surmounted over the east ridge by taking to the rocks below the final, snow slope, which slants up to the Brèche de la Meije on the La Grave side. A way may be made to La Bérarde by descending the rocks and snow slopes in the southerly face to the Glacier des Etançons, and then down by the ordinary track from the Brèche de la Meije.

The beautiful peak of Les Ecrins, as the highest of the Dauphiny Alps, receives a good deal of attention from mountaineers. It is more of a snow mountain than many of its neighbours, and its summit has been reached from several directions. The eastern point (13,462 feet) is the highest of the three peaks on the summit ridge.

The Ecrins is now most frequently traversed; the usual course being to climb up the south face and down the north. In that case, the Carrelet Hut, which is reached in about $1\frac{1}{2}$ hours from La Bérarde, may be used. Dissatisfaction is often expressed that this hut (6,789 feet) is situated so low down; it would be more convenient if it had been built some 2,000 feet higher, for the traverse of the Ecrins involves a long climb, even when the mountain is in good condition.

On leaving the hut a torrent is crossed, and then the track mounts by steep zigzags through the pine trees, which gradually dwindle in size as the elevation increases. The way then lies up over débris, and under the rock-wall of the Pic Coolidge to the Col des Avalanches, from which a steep ice-couloir over 3,000 feet in length descends on the other side to the Glacier Noir. This couloir is very dangerous, and has only been traversed once. A glimpse down the vast, ice-lined funnel, and the sound of falling fragments echoing amongst the disintegrating cliffs, will convince even the veriest "glutton for danger" that there is good reason for its neglect. This pass has been well called the Col des Avalanches, and most mountaineers will prefer to reach the Glacier Noir by way of the Col de la Temple on the other or southern side of the Pic Coolidge.

However, the approach to the Col des Avalanches from the La Bérarde side is comparatively easy, and at its summit the actual ascent of the peak of the Ecrins begins. The way at first lies up the right-hand branch of a wide couloir, and then across two narrower gullies, after which the passage of a smooth overhanging rock is facilitated by a fixed rope. Then comes what is often the most difficult part of the climb, the crossing of a deeply-cut snow couloir. Considerable care is required here, especially if the snow is in bad condition, when it is not easy to regain the rocks at the far side. The small, hanging Ecrins Glacier is then ascended, and interesting rocks ensue which lead direct to the summit.

In the descent the north-east arête is followed for some distance, with fine views meanwhile down steep rocks to the Glacier Noir on the right, while the Glacier Blanc on the left lies far away below. This latter glacier is then reached by descending a steep snow or ice wall, often down a shallow depression known as the Couloir Whymper. Here, if the conditions are at all bad, great steadiness is required, and every use must be made of any projecting rocks, even when but a few inches of them appear above the ice. The bergschrund at the base may give some trouble; and after that it is generally easy to find a way down the snow slopes and round the séracs of the great Glacier Blanc to the Col des Ecrins, where a long, steep, and narrow ice or snow couloir leads down to the Bonne Pierre Glacier.

It is often best to climb down the rocks on the right bank of the couloir, which can be done in an hour or so, and then the glacier is descended till it is possible to take to the crest of the big moraine on its right bank (see illustration, p. 410).

This famous moraine, the *bête noir* of benighted parties, forms a steep-sided ridge of compacted mud and rock only a few inches wide along its narrow top. Down this the climber who has lingered too long amongst the beauties of the upper world may have to grope his way somewhat in the attitude assumed by a cat walking the ridge-pole of a roof.

Those who descend the moraine by lantern-light are not likely to forget the experience, but in due course it dwindles away, and the way then lies down the right bank of the torrent. This is crossed a short distance before it joins the Etançons

stream, whence the walk down to La Bérarde is soon accomplished.

The Carrelet Hut is a convenient base from which to attack many of the surrounding peaks. Les Bans is one of the most entertaining of these, and it is ascended by way of the Col de la Pilatte, whence two hours of pleasant rock-climbing leads to the top. The descent may be varied by scrambling down the rocky Arête des Bans to the Col Gioberney, where steep snow slopes lead back to the left branch of the Glacier de la Pilatte.

The Pic d'Olan (11,735 feet) is one of the most difficult courses at La Bérarde. It is usual to sleep in one of the huts at La Lavey, and next morning breast the steep grass slopes and moraines leading to the snowy base of the peak at the Brèche d'Olan. After crossing the bergschrund splendid rocks rise all the way to the summit, where a short spell of step-cutting up an ice slope is sometimes necessary.

The Pic Coolidge occupies a prominent position at the head of the valley above La Bérarde; it is not very popular on account of the presence of loose rock in places, and those who visit it would be well advised to follow the Scriptural advice to "prove all things" and "hold fast to that which is good."

Amongst the easier peaks round La Bérarde which can be recommended for training scrambles at the beginning of a holiday are Le Plaret (11,713 feet), Aiguille de la Bérarde, Pic des Etages, or the somewhat more ambitious snow expedition to Les Rouies (11,923 feet) by the Glacier du Chardon.

The lofty summit of the Pelvoux (12,973 feet) and the Ailefroide (12,878 feet) are not as easily approached from La Bérarde as from the Vallouise side of the range. If the homeward journey be made by that valley and through Briançon, those deserving mountains can be explored *en route*. The Refuge de Provence, which is excellently situated on the southern slopes of the Pelvoux, stands at a height of 8,937 feet, and may be attained after a long day's tramp from La Bérarde over the Col de Sélé. There is a great snow-filled, crater-like depression near the top of the Pelvoux, and from this hollow any of the four peaks on the highest ridge can be climbed easily in half an hour's time. It provides an enjoyable excursion to visit all four summits in the same day.

The highest point of the Ailefroide rises at the western extremity of its extended summit ridge, and this can be ascended from the south by starting up the Glacier du Sélé, and thence gaining the rocks of the final peak over the Glacier de l'Ailefroide. Its descent to the valley and homewards is best made by the same route.

The ride along the beautiful Vallouise, with its rich vegetation and bewitching glimpses of mountain and river, provides a striking contrast to the rugged, untamed grandeur of La Bérarde. However, as the great peaks fade in the distance, and as the noisy train, with a roar, whirls the mountaineer across the plains of France, he will long for the calm and peace of that lonely mountain retreat La Bérarde. If not, perchance, the turmoil of a stormy Channel passage may cause him to do so.

CHAPTER XXVI

CHAMONIX AND MONT BLANC

“There many a precipice
Frost and the sun, in scorn of mortal power,
Have piled; dome, pyramid, and pinnacle,
A city of death, distinct with many a tower
And wall impregnable of beaming ice.”—SHELLEY

THAT Mont Blanc is the highest mountain in Europe was a lesson of our childhood's days, and those blessed with a good memory may remember that it rises 15,782 feet above the level of the sea. Many who possess glorious recollections of the Great White Mountain, and who perhaps may never go further afield, will still prefer to believe in the truth of this statement, though learned authorities may urge the superior claims of some of the Caucasian peaks. However, there is a comforting, popular belief that these are situated in Asia.

The wonders of Ushba, Dych Tau, Elbruz, and many others have been told in no uncertain manner; the dangers resulting from the treacherous, one might almost say murderous, dwellers at their feet have been publicly proclaimed. Personally, I prefer the glories of the more accessible Matterhorn, Jungfrau, and Mont Blanc, and the more genial welcome of the Alpine peasants, who realise that it is not necessary to slay their victims before they plunder them.

The base of Mont Blanc can now be conveniently reached by railway by way of Paris and Geneva; and Chamonix on the northerly or French side of the massif is rapidly assuming the proportions of a large town. Courmayeur, at head of the Val d'Aosta, and quite close to the foot of the Italian Val Ferret, which forms the southern boundary of the mountain, will usually be approached from Chamonix by the Col du Géant or some other of the snow passes across the range.



Abraham

THE UPPER PART OF MONT BLANC—FROM THE SLOPES LEADING UP TO THE VALLOT HUT
THE GRAND PLATEAU IS SEEN BELOW AND THE ROCHERS ROUGES ON THE LEFT

Mont Blanc is bounded on the west by the Val Montjoie with St. Gervaise and Contamines as principal villages, whilst the Vallée de Champex and the Swiss Val Ferret may be conveniently considered the eastern boundary.

Only this eastern end of the chain belongs to Switzerland; Chamonix and the northerly slopes are in the French department of Haute Savoie, and the southerly side is in the Italian territory, and to a large extent forms a part of the Duchy of Aosta.

There are over forty important peaks in the range of Mont Blanc, and most of these can be explored and climbed by making Chamonix the headquarters.

The bulk of the range is composed of the Chamonix aiguilles, which thrust their rocky crests out of the vast glacier systems, which radiate valleyward in almost every direction from the frozen dome of Mont Blanc. Practically all mountaineers at some time or other make their pilgrimage to that "silent pinnacle of aged snow," which in distant ages was known as Mont Maudit or the "accursed mountain." Modern climbers who make the long, exhausting journey when the snow is deep and soft may think the title quite justified and wonder why the name has been shifted to a neighbouring peak.

Now that the railway transports the traveller almost too quickly to Chamonix, his first sight of the Monarch of Mountains is apt to prove disappointing, for the valley lies too much underneath the vast mass, so that, on account of foreshortening, the summit appears difficult to appreciate as such. A few years ago the final part of the journey to Chamonix was made by *diligence*. My memory retains the impressions of the first journey in those earlier days, whilst more recent visits by railway are commonplace enough to be forgotten.

It was a damp, cloudy June afternoon at Le Fayet when we changed from the luxurious railway carriage to the dilapidated and uncomfortable vehicle which in Alpine valleys is known as the *diligence*. The word has always been associated in my mind with the slow, diligent progress of the tortoise; certainly diligence must be exercised in the pursuit of patience and long-suffering to bear this mode of locomotion cheerfully.

The vehicle was loaded with the members of a "personally conducted" party, and the yarns which their cicerone spun

regarding the mountains were astonishing enough to become amusing. The recent discovery at the foot of one of the glaciers of the human relics of an accident which had occurred many years previously, formed the subject of general interest. It was surprising to hear that many of the Chamonix guides make a good living by hunting for ghastly remains at the snouts of the principal glacier on Mont Blanc, and monopolising the valuables which are constantly brought to light. Such ridiculous details and mountaineering accidents formed the bulk of the information imparted by the gentleman.

When the carriage approached Les Houches it was a relief to notice the mist clearing in front, and patches of blue sky were visible up above. Suddenly, as we rounded a turn in the road, a general exclamation of surprise was heard. Far up in the pale blue sky, and apparently almost overhead, the fairy outline of a great white peak glittering in brilliant sunshine was gradually unfolded to our view. The light, thin mist was drifting lazily across the upper levels, but all below was blotted out except the nearer distance of pine-clad slope, which loomed weirdly through the fog. The sight was glorious, and an almost reverent silence fell on the cosmopolitan party. However, this was only temporary, for the effect was quickly spoilt by the harsh voice of the Cockney conductor. He coolly stated that we saw "before us the giant peak of Mont Blanc, and to climb it is so dangerous and foolhardy that one out of every four who essayed the ascent gets killed." When the American gentleman next to me immediately said, "The man who goes up Mount Blanc must be a fool," I felt this to be the general opinion of the crowd, and almost inclined to be nervous regarding our projected ascent. The feeling was quite temporary, however, for an Englishman at the back of the diligence shouted "Rot!" and the voluble orator had enough sense not to dispute the matter.

As a matter of fact the mountain we saw was not Mont Blanc, but the Aiguille du Goûter, and the average loss of life amongst amateurs who ascend the mountain is so small that it is practically negligible. The sport of mountaineering has suffered much popular humiliation by such misleading statements, but nowadays it is generally recognised that all manner of men climb mountains, and that, just as in golf, football, and

other sports, there are fools and wise men. Still the Yankee criticism was far too sweeping.

Arrived at Chamonix we sought the comparative peace of the Hôtel Couttet, where English climbers do mostly congregate. There we spent a few days recovering from the effects of the journey and making short expeditions by way of training.

The walk up the Brévent, on the opposite side of the valley and facing Mont Blanc, proved an excellent means of learning the topography of the district. The great peak, with its wide array of sharply pointed aiguilles, was spread before our gaze, and our Kurz-Imfeld map in the very near foreground made every detail plain. This wonderful and accurate map of La Chaîne du Mont Blanc is indispensable to all climbers who visit the range.

The whole height of Mont Blanc was visible, from the tiny chalets in the valley, scarcely 3,500 feet above sea-level, to the snowy, dome-shaped summit over 12,200 feet higher. Scarcely anywhere in the Alps is such a great height visible without the intrusion of nearer summits. The vast mass of the Glacier des Bossons seemed to hang like a great, white curtain of varied design from summit to base, and the newly-fallen snow softened the sharp contrasts of the rocky bastions and sombre, lower slopes.

From the Brévent the ways from Chamonix to the top are comprehensively visible, and we were easily able to follow the ordinary route. The Montagne de la Côte, which divides the Glaciers of Bossons and Tacconnaz, led the eye up to where it appears, roughly speaking, to terminate in the curious outstanding rocks known as the Grands Mulets, where the famous "half-way house" is situated. The climbing imagination could trace out the course across the Glacier des Bossons above the most complicated crevasses, until the point was reached where the "overflow" of the Glacier de Tacconnaz meets it above the Montagne de la Côte. This was unmistakably the place known as the Junction, and we knew that difficulties are often encountered there just below the Grands Mulets Hut.

The upper part of Mont Blanc possessed a curiously deceptive appearance. The Grand Plateau looked quickly accessible from the Grands Mulets, and even the final sections over either

the Bosses du Dromadaire or the Corridor seemed ridiculously short compared with the distance from Chamonix to the sleeping-place.

We were undeceived a few days later. The upper reaches of Mont Blanc slope back considerably. The Grands Mulets stand at an altitude of about 10,000 feet, which leaves an ascent of over 5,780 feet for the second day. If the snow is in bad condition the labour involved in completing the climb makes a day on the tread-mill seem like child's play by comparison; at least an authority on the subject once told me so.

By the aid of the map and descriptions we had read, it was an easy matter to realise something of the impressiveness of that great hollow in the Grand Plateau, which is almost directly below the highest point. The long shadows cast by the westering sun were thrown athwart the immense, snowy recess, and these accentuated the ponderous bulk of the Aiguille and Dôme du Goûter on the right. The opposite retaining wall was formed by the more complicated face of the Aiguille du Midi, with Mont Maudit peeping round its southerly shoulder. Farther to the left and east of the Glacier des Pélerins rose the front of the principal mass of the Aiguilles of Mont Blanc. They seemed somewhat dwarfed by comparison with the neighbouring snowy monarchs, but we knew they offered the most magnificent sport for the expert mountaineer.

The Aiguille du Plan failed to arouse much enthusiasm; it rather suffers from the same defect as the Aiguille du Midi. Both of these peaks are usually climbed by circuitous routes on their farther or southerly sides. The rock-climbing they afford is not very extensive or interesting. The trident summit of the Blaitière compelled more attention, for the ascent was included in our intended programme.

But the more easterly peaks of the central series were the most fascinating of all. On their left was the deep hollow which held the Mer de Glace, and dividing them from the Blaitière was the difficult and dangerous-looking Glacier des Nantillons. The Aiguille de Grépon dominated this group with the serrated peaks of the Grands Charmoz in front, and the then unclimbed Aiguille de la République thrusting its sharp tip aggressively out beyond the long, northerly ridge. In front of this ridge and at a lower level, the Petit Charmoz and the Aiguille de l'M

formed a worthy termination to the mass, and their shattered crests looked extremely inviting.

The peaks on the other side of the Mer de Glace lost somewhat of their proportion because the full height of the Aiguille Verte was visible, and this cast its more important though lower satellites into the shade. Of these the Grand Dru and the Petit Dru were recognisable, with the Aiguille du Moine beyond, and its famous ridge leading up to the Verte was seen in profile. Still farther to the east, but too distant to attract serious attention, were the Aiguilles du Chardonnet and d'Argentière, with the Tête Blanche, the Aiguille du Tour, and many minor summits in near proximity.

Time flew quickly during our elucidation of these topographical matters, and the cool evening air made the shelter of the small café on the summit of the Brévent most acceptable.

During the descent to Chamonix an adventure befell us which showed that even the so-called inferior mountains are not devoid of danger. We had a powerful, young Chamoniard with us as porter, and when we arrived on the steep snow at the top of the Cheminée, he seemed amused at our careful method of descent. In the early part of the day the warm sun had softened the snow, but for some hours this side of the mountain had been in the shade, and the icy surface required steps to be carefully kicked in it. We never thought for a moment that our porter could have spent his life amongst the mountains without learning such matters, but it apparently was so. He half-walked and half-slid out on to the centre of the couloir; then before we could utter a word of warning, his feet slipped from under him and he came crashing down towards the rest of the party. Fortunately none of us were directly in his track, but, being aware of the fact that a succession of small precipices lay directly below, one of the amateurs attempted to arrest his progress. The result was surprising. The rescuer was simply flung off his feet into mid-air, where he described a series of somersaults before landing amongst the rocks at the side of the couloir. Luckily he alighted where some iron rails were fixed in the rocks, and in the momentary stoppage of his progress he was able to clutch these convulsively and thus prevent further fall.

But the thoughtless cause of it all continued his mad career

downward, though the attempted rescue had diverted his course somewhat into the side of the couloir. There his back struck the rocks with such terrific force that he was partially stunned, and thus unable to save himself. We shouted desperately, but his body turned slowly over, and at first he rolled and slid again about twenty feet further. Another painful thump into the rocks ensued. Then, at this point, by what must have been an act of Providence, he struck one of the lower iron stanchions which have been fixed to facilitate the ascent, and his coat became entangled in one of the broken rails. We called to him not to move, but in a half-dazed sort of way he would persist in an attempt to stand up. At a dangerous speed we hurried down to him and secured him by means of a rope.

At such times a knowledge of "first aid" is useful, and one of us was able to feel him all over in such a capable manner in case of any broken bones, and attend to his wounds so effectively, that the patient felt sure he was in charge of a real medical man, and the good Samaritan was known afterwards as "*le docteur*." As a matter of fact the damage was not serious; besides general cuts and bruises, the most troublesome detail was a broken thumb. The bottle of Cognac proved a marvellous medicine, and when he complained of a painful back, we could at least impress upon him that a bruised back was better than a broken head. As a result of this exciting episode the descent to Chamonix was made at a slow pace. It was quite dark when we reached the lower forest below Planpraz, and all were glad when the lights of our hotel were visible.

Two days later the involuntary glissader appeared decorated with plasters and bandages to inform us that his mother thought he had better not come with us up Mont Blanc; which delighted us greatly, for we had decided not to further endanger our lives with such a companion.

The weather meanwhile had become unsettled, but we found some pleasant scrambling during the ascent of the Aiguille de la Floriaz (9,500 feet), which is almost the highest point of the long range of the Aiguille Rouges on the northerly side of the Chamonix valley. Though on the same range as the Brévent, it afforded a much more comprehensive view, more especially of the magnificent group of aiguilles which rise around the upper reaches of the Mer de Glace. In descending from the Floriaz

we made the traverse along the ridge to the Aiguille de la Glière, and then struck right down broken rocks in the direction of Planpraz and Chamonix.

On a later day, when the wind had turned northward again and the weather had improved accordingly, we paid a visit to the Aiguille de l'M and the Petit Charmoz. This expedition quite convinced us of the fact that Chamonix is most unsuitable as a base from which to attack these or the other and bigger, adjacent aiguilles. The hotel on the Montanvert (6,303 feet) is the only suitable centre, so we decided to attempt Mont Blanc next day from Chamonix, and then move up to this more convenient climbers' resort.

That same evening we sat outside the hotel watching the beautiful, crimson afterglow gradually vanish from our snow-crowned friend of the morrow, and discussing the question of tariff with Simond, one of the leading local guides.

Incidentally I may refer to the question of choice of guide at Chamonix. The Bureau des Guides represents the association called La Compagnie des Guides de Chamonix, the rules and regulations of which may prove a stumbling-block to real mountaineers who wish to attack the difficult peaks.

It appears that each guide, good, bad, or indifferent, takes his turn for an engagement as the demand occurs. The consequence is that, as the two latter kinds predominate in the proportion of about fifty to one of the former, the expert may find himself in an unpleasant situation. This curious rule has led to the importation of first-class guides from other Alpine districts, and during the season these visitors, who are somewhat unpopular from a local point of view, predominate at the Montanvert. However, there are a few first-class guides around Chamonix who are capable of the most difficult courses, and I have always found it best to neglect the Bureau des Guides altogether, and make private arrangements with a suitable guide. An interview with such an one can easily be arranged by making inquiries of the hotel proprietor.

In this way we secured a suitable guide for a fortnight's climbing, and he in turn found a porter "strong as a horse and willing to carry whatever we wished, camera included." However, what with provisions and other luggage, we found the loads altogether beyond our strength. The poor little porter,

Amaud by name, peeped from under his huge load with a piteous expression on his face, somewhat akin to that I have somewhere seen portrayed on the visage of an oft-mentioned Biblical ass. He remonstrated humbly, and in a mixture of broken English and French *patois* called himself "un grand mulet." Simond who was always quick to fabricate a joke, translated this to mean "a great ass," and blamed his companion for undertaking to carry anything to the top of Mont Blanc until he had tried its weight. The outcome was that we took another porter as far as the glacier below the Grands Mulets.

As we trudged steadily up through the pine woods the midday heat was very trying, for no signs of a breeze stirred the sultry air. Below the Pierre Pointue and above the forest the hot sun wearied us considerably during the ascent of the steep zigzags, where tourists oft do linger who essay the popular walk to the Pavillon from Chamonix. The monotony of this section was relieved by the sight of the curious means of locomotion adopted by some of these parties. Some would almost run for a few yards and then sit down to gasp for breath. The process was repeated time after time, but these spasmodic efforts were not so effective as a slow, steady trudge.

It was also amusing to watch how a family of Germans managed the steep part. Such scenes are common on the popular routes. The mother, of the usual Teutonic proportions, rode on a mule with her youngest son in her arms, whilst her robust "better half" hung on with both hands to the tail of the long-suffering beast, and with his coat-tails assisted two perspiring and unfeeling daughters. It is questionable whether a society for the prevention of cruelty to animals would flourish in the Alps.

At the Pierre Pointue we had a practical reminder that we had gained the higher regions, the prices for refreshments were as high as the place, a fact which, by the way, was further impressed on us at the Grands Mulets. However, we carried the bulk of our provisions, and the natural disposal of them lightened our loads. During the short halt the sky became gloomy and overcast. The heavy atmosphere betokened thundery conditions, and ere we reached the Pierre à l'Echelle on the (true) right bank of the Glacier des Bossons, heavy

raindrops began to fall. Lightning flashed amongst the crags of the Aiguille du Midi straight ahead, and distant thunder rumbled in the west. Some discussion arose anent the question of turning back; but we knew the reputation of Mont Blanc as a "quick-change artist," so we decided to shelter under a great, flat boulder in hopes that the storm would pass.

It was a fine experience to watch the *tourmente* gradually increase and spend its fury on the vast imperturbable solitudes. The thunder reverberated incessantly from side to side of the valley, and then it seemed to echo itself to exhaustion with a dull moaning roar amongst the deep snowy recesses of Mont Blanc. The downpour turned to hail and eventually snow before the sky gradually grew lighter and the atmosphere cleared. The air was then wonderfully invigorating. Bidding adieu to our extra porter, we shouldered the augmented loads and set off for the rocks of the Grands Mulets, which were beginning to peep through rising mist. The new snow made the ice rather slippery, and some large crevasses, where Simond showed his powers of step-cutting, were encountered almost immediately.

Easier glacier soon intervened, and in half an hour's time the Hut was clearly visible ahead, and the wonderful, complicated ice-fall known as "the junction" called for the exercise of mountaineering skill. Amongst the most difficult crevasses we met a party of two young Englishmen with two Chamonix guides returning from the day's excursion to the Grands Mulets. The professionals were too painfully energetic in the use of the rope. Their charges seemed delighted to see us, and the reason for this was soon obvious, for their first question was, "What's the French for 'Do stop pulling the rope'?" We left them in a more comfortable frame of mind and body, and an hour later were scrambling up the rocks to our resting-place for the night.

The Pavillon des Grands Mulets, to give it its full title, is airily situated near the crest of a steep rock tower at a height of 10,113 feet above sea level. The crags are steep on every side, and on the north-easterly front there is an unobstructed drop for 1,000 feet down to the séracs of the Glacier des Bossons. Icefalls surround it on every side, and but for these it would bear a striking resemblance to those imaginary pictures of the

impregnable fortress of our youthful fairy-tale days. During the season attendants are in charge every day, and considering that the Commune seems to have so much command over the conduct of the place, they are most obliging and attentive. Anyhow, we found the "boots" specially so. We retired to bed at 7.30 p.m. after leaving instructions with him that he was to "knock" us up at midnight. This was done to the letter. Thinking to take a little extra "snooze" some of us dozed off again. This must be a common habit at the Grands Mulets, for, almost before we understood what was happening, we were ruthlessly torn from our beds and left on the cold floor minus the blankets, and rubbing our bruises. It appeared that this was a playful peculiarity of that special caretaker. Long and necessary practice had made him an adept at this strenuous but practical form of "knocking." The awakening process was further hastened by sundry knocks on our heads resulting from contact with the low-raftered ceiling during the search for our clothes in the darkness, which was but feebly dispersed by a "home-made" candle.

Breakfast is never a brilliant success in such places, and it would have puzzled even the late Dan Leno to define the quality of the boiled eggs we attempted to tackle. Simond cheered us on with the remark that it was advisable to eat as much as possible, for the snow was in very bad condition, and seven or eight hours of laborious walking would be involved in the journey to the summit.

In due course we had gathered together our luggage, the heaviest part of which was a whole-plate camera and outfit. Then we moved carefully out into the starry night, and, leaving the rocks, launched fairly out on the vast sea of snow-covered ice west of the Grands Mulets. We soon turned to the left and struck straight up the slopes with the huge mass of the Dôme du Goûter looming mysteriously above us on the right.

Progress for the first hour or so was rather uninteresting, except for the eeriness of it all; but about 2.30 a.m. the moon rose above the black mass of the Aiguille du Midi on the left, and we saw in front the top of Mont Blanc shimmering in its cold rays. Behind us, and far below, the lights of Chamonix twinkled dimly in the form of a rude cross. No cheering ray of moonlight penetrated into the deep snow-encircled valley of the

Petit Plateau across whose almost level surface we trudged silently. But for the slight, rhythmic sound of the footsteps in the yielding snow our movements midst such weird surroundings might have seemed almost ghost-like. The two folding lanterns shed a dim light over the white unbroken surface, but the near view was very restricted. I remember that mine consisted mainly of a striking vari-coloured patch on the trousers of the man in front, and now and again I could see that Simond led us along the edge of great crevasses, into whose depths our tiny, artificial lights failed to penetrate.

Contrary to expectations and usual experience the snow became softer the higher we climbed, until in several places it was necessary to kick each step down four or five times before it was firm enough to bear the weight. This grew very exhausting, and Simond and others broke the heavy silence with some forcible remarks, which proved, at least, that we were not ghostly visitants from a better world.

Slowly we advanced upward, and the bright line cast by the moon crept steadily downward until the accession of its welcome light made the use of the lanterns unnecessary. About the time when the sky began to grow pale in the east, we passed below some tremendous pinnacles of overhanging ice, where silence was enjoined on the whole party. Simond had previously had a narrow escape at this place, and, with the great masses leaning threateningly above us, it was easy to understand that a sudden call or loud laugh might bring some of them down upon us. A few minutes later we were stopped by a great crevasse fully 40 feet wide which stretched far across the snow-field at right angles to the direction of ascent. A snow bridge usually simplifies the passage, but now only a great, black gulf was visible, and this was rendered more awesome in the uncertain light.

Simond shook his head ominously and said that it would be necessary to wait for more light. By the aid of this it would be possible to force a way through the more broken séracs on the Dôme du Goûter side of the slope, and thus gain the level portion of the Grand Plateau, which was only a few hundred feet above us. The cold was intense, and by way of warming exercise we walked along the lower lip of the crevasse for some distance to the left, but the gulf simply grew wider, and several crevasses

higher up revealed the fact that an attempt in that direction would be hopeless.

Whilst moving back again to the point of arrival Simond suddenly peered over the edge of the abyss and uttered an excited exclamation. We soon joined him, and about twenty feet below we saw the object of his attention. Some large splinters from the side of the crevasse had come away and fallen into its interior; one of these, with a thin, sharp, icy crest, spanned the gulf from side to side.

The place looked feasible, if steps could be cut down the initial twenty feet to the bridge. Simond agreed that exercise was better than inaction, so holding the lighted lantern in his mouth he carved a staircase in the icy wall whilst we steadied him from above with the rope. After some time the ring of his axe and the clattering of splinters ceased. A chuckle of satisfaction told us that he had reached the ridge of ice, which proved safe and firm. We all followed carefully in his steps, and after lowering the luggage, Amaud came down last, with the tallest member of the party supporting him from below when he came within reach of his long arms.

The next section proved the most sensational. The sharp ridge of ice narrowed to the width of a knife-edge in the middle, and it required steady nerves to feel happy whilst crawling along it with the legs swinging out into nothingness on each side and the gloved hands attempting to grip the slippery crest. This mode of locomotion did not last many minutes; the ridge soon widened enough to allow us to stand up and walk deliberately along to the opposite wall of the crevasse. Luckily this sloped back considerably at one spot, and Simond, with some assistance from those below, found no serious difficulty in making steps up to the open glacier above.

The rest of the party followed quickly, and we all emerged into glorious, warm sunshine on the slope below the Grand Plateau. Nearly two hours of valuable time had been occupied in negotiating fifty feet of our mountain. The summit rose magnificently ahead, glittering white and stupendous in the brightness of day, and long, blue-black shadows stretched athwart the tremendous, icy precipice.

The reflection from the new snow made it painful to gaze



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A DIFFICULT CREVASSE ON MONT BLANC

long on the marvellous scenes, so we put on goggles and rubbed lanoline into our faces to prevent the tender skin from sun-burn. The conditions were especially bad for this latter trouble, and even Amaud with his mahogany-coloured complexion did not refuse to follow our example.

Several less formidable crevasses were negotiated before we finally emerged on the slopes to the right and above the Grand Plateau. For some time one of the party at least had felt the truth of the statement that "nature abhors a vacuum," and the suggestion of a second breakfast to correct this met with universal approval.

While the meal was in progress Simond pointed out to us the Corridor Route from the Grand Plateau to the summit. Less than halfway across the Grand Plateau, when arriving there from the direction of the Grands Mulets, it is necessary to turn to the left and make a way through a series of fine-looking crevasses. The route then follows in an easterly direction along and up the steep slope below the lower Rochers Rouges. Beyond there it is necessary to zigzag back to the right in the direction of the summit. The old Janssen Cabane on the higher Rochers Rouges must be passed to the left, and then a direct course is steered for the final slope by way of the Petits Rochers Rouges and the Petits Mulets. These are the last rocks noticed, and they are about four hundred feet below the top. The Corridor Route was one of the earliest ways found to the summit, but it is not much used nowadays, except in windy or stormy weather.

The same remark applies to the Ancien Passage, which rises to the left from the head of the Grand Plateau and continues above the Rochers Rouges, until the course joins the Corridor Route just beyond the Petits Rochers Rouges at a height of slightly over 15,000 feet.

The favourite route is by the Vallot Refuge, the Bosses du Dromadaire, and the north-west ridge. This was the means of our approach, and no finer one could be desired. Just beyond the Vallot Hut,—the Observatory was on this occasion completely hidden under the snow,—we had on the left a striking view down the steep, icy incline leading to the Grand Plateau.

The sight recalled a story once told us by a mountaineer who had performed marvellous feats of solitary climbing. A

glimpse at the scene of his adventure made us lose faith in some of his records. He was supposed to have slipped from his steps and slid down the tremendous slope for a thousand feet or more in the direction of the Grand Plateau. In his wild and unexpected rush downwards his axe disappeared, and, as is usual in such a case, he stopped on the very edge of a yawning abyss? "Nevertheless," he said, "the loss of the axe did not disconcert me for long. I carefully gathered myself together and cut my way up again with a slate." And as such things are, to say the least of it, rare on this part of Mont Blanc, the only explanation we could give, was that it had come off his own head.

None of us betrayed any desire to test whether a human being could live after such a terrible fall, so we continued along the crest of the narrow ridge. On the top of the first and larger Bosse we first felt the effects of the rarity of the air, and progress became very slow. We scarcely took more than half a dozen steps a minute on the final slope; to force the pace beyond this with such bad conditions would probably have meant an attack of mountain sickness. Half an hour later we were reclining on the harder snow in the welcome shade of the Summit Observatory, which was built by Dr. Janssen in 1895. Needless to say, it is scarcely ever used.

The depth of the ice cap on Mont Blanc is so great that the energetic constructors failed to find rock upon which to build the foundations, despite prolonged tunnelling. Consequently, the building is gradually moving down the side of the mountain, with the vast annual accumulation of snow, in the direction of Chamonix. Ere long this lofty monument to misdirected energy will topple over the ice precipice below the summit to be swallowed up in some useful and convenient crevasse. Lovers of unsullied natural beauty will probably say, the sooner the better. Such an erection, when clad in a coat of fairy frost-work and snowy spiculæ, possesses certain beauties; but when the melting moments come, advertisements of patent medicines and other things peep out in all their baldness from the ugly walls of this desecrating enormity.

The view from the top of Mont Blanc is scarcely ever satisfactory, except in the early morning hours, for at midday clouds generally obscure the distant prospect, more especially





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THE VIEW FROM MONT BLANC, LOOKING IN A NORTH-EASTERLY DIRECTION

to the south. On the occasion of the ascent which I have described, the exceptionally bad conditions and the excessive time spent in photography had delayed us so much that over ten hours had passed since we left the Grands Mulets. Thus we arrived too late to be favoured with an altogether unobscured prospect; still, enough was visible to render a short description feasible. The north-easterly outlook over the magnificent array of the aiguilles interested us most.

At our feet dipped the long snow ridge to the Mur de la Côte above the Rochers Rouges, and beyond the *col* the sun glinted across the corniced slopes of Mont Maudit, with the Aiguille du Midi to the left and the extended top of Mont Blanc du Tacul to the right. Beyond Mont Maudit's glistening crest peeped the icy pinnacles of the Aiguille du Plan and the Blaitière, with the square rock tower of the Grépon standing up black and impregnable-looking still farther away. The long sweep of the Glacier du Géant seemed to divide the aiguilles into several groups, and on its remoter side the Verte towered grandly above its lesser neighbours. Of these the two Drus and the Moine hardly appeared in their true proportions, whilst away to the right the wide array of rocky peaks encircling the basin of the Glacier de Talèfre terminated in the unmistakable mass of the Grandes Jorasses and the Aiguille du Géant above the well-known *col*. In the far distance, beyond all these loomed the Grand Combin with a sea of mountains extending to the Central Pennines, where Monte Rosa, the Matterhorn, and Dent Blanche were only just discernible.

The outlook beyond the Chamonix valley possessed relatively little interest or individuality, excepting where the Oberland peaks floated on the horizon like a dim grey cloud, and the blue waters of the Lake of Geneva lay comparatively close at hand.

The glare of the southern sun above and amidst the weirdly massed cumuli made the scene in that direction somewhat indefinite, but in the near foreground and middle distance Mont Blanc de Courmayeur and the great Glacier de Miage were conspicuous objects. The aiguilles in the group of the Trelatête formed its farther bank, and the deep hollow of the Vallée Blanche and the Val Veni proclaimed the vicinity of Courmayeur, with the imposing, intervening mass of the Aiguilles Pététet.

The halt on the summit was spent mostly in eating and photography, and the hour allotted for the interlude was quickly over. Then we turned to the descent with the Dôme du Goûter and the grand ridges of the Aiguille Bionassay in front, whilst the Juras and the plains of France stretched afar off to the horizon.

The descent was free from special incident. During our stay in the higher regions a party of guides had brought up a long ladder from the Grands Mulets and arranged it securely across the narrowest part of the great crevasse. Thus the only break in the three and a half hours' floundering trudge down to the Grands Mulets was when one or other of us carelessly stepped into some of the numerous hidden crevasses which were passed *en route*. We raced at as great a speed as possible across the Petit Plateau, where avalanches constantly fall. Instead of glissading we waded down the Petites Montées, and gained the welcome, shady shelter of the hut in time for very high tea. No time was wasted after the repast, and about four hours later we strolled leisurely into Chamonix discussing plans for a visit to some of the aiguilles. With this end in view, that same evening we made our way up to Montanvert, with instructions for the baggage to follow next day.

The way up Mont Blanc by the Grands Mulets is by far the most popular means of approaching the summit. But those who have had much mountaineering experience will perhaps find it very dull and uninteresting, and some mention should be made of the other principal routes.

A party of the early pioneers reached the top from St. Gervais by crossing the Aiguille and Dôme du Goûter. Of recent years it has become a favourite course for parties from Chamonix to join this route at the Pavillon de Bellevue. A new hut has been erected on the Tête Rousse at a height of 10,400 feet, which is attained by means of a comparatively good path, which involves practically no walking on snow or glacier. Still higher, the old cabane of the Aiguille du Goûter is passed, and, after crossing the Dôme, the route over the Bosses du Dromadaire is joined in the vicinity of the Vallot Observatory.

Those who enjoy a snow and glacier expedition pure and simple should visit the peak by way of the hut on the south side of the Aiguille du Midi. The sleeping-place can be most

easily reached from Chamonix by way of the Montanvert, the Glacier du Géant and the Vallée Blanche. Others may prefer to go by the Pierre Pointue and the Pierre à l'Echelle, whence steep rocks lead up to the ridge east of the aiguille and thus over to the hut, which is also accessible from the Col du Géant on the Italian side in about three hours' quick walking.

The way from the hut to the summit runs over Mont Blanc du Tacul (13,941 feet) and Mont Maudit (14,669 feet). From the latter peak a considerable descent is involved in order to join the ordinary Corridor Route from the Grands Mulets, which is utilised to complete the course.

For many years the attention of mountaineers was devoted to the discovery of a satisfactory way up Mont Blanc from Courmayeur on the Italian side. Several successful expeditions were made, but with one exception scarcely any of the routes followed are of general interest or utility. Only passing mention need be made of some of these, but a few details of the best course from the south, which is known as the Dôme Route, may presently prove desirable.

The Glacier de la Brenva apparently offers the most obvious approach to Mont Blanc from Courmayeur. However, the narratives of the difficulties and dangers encountered by the few parties who have thus made the ascent, convey the impression that this course is scarcely to be recommended. Two memorable climbs were made by the Brenva Glacier; the first was in the July of 1865 by the late A. W. Moore's party, and the other by the late A. F. Mummery's party, without guides, in 1894. The pioneers joined the Corridor Route from Chamonix near the Mur de la Côte, whilst the guideless party struck the same ridge higher up and nearer to the rocks of the Petits Mulets.

The south side of the mountain has also been surmounted by the Brouillard Glacier, the upper part of the Fresnay Glacier, and the Col de Pététret, as well as by the Miage and Mont Blanc Glaciers.

However, the more familiar Dôme Route appears to have more attraction for English climbers who wish to traverse the peak. The track from Courmayeur to the Dôme Hut passes through La Visaille in the Val Veni, and strikes away to the

right on approaching the shores of the Combal Lake. The true right-hand moraine of the Miage Glacier should then be used until the clear ice in the centre of this débris-covered glacier can be reached. Progress is then pleasant and easy to the base of the conspicuous Aiguilles Grises. At the foot of the rocks a sharp turn should be made to the right, and after about an hour and a half of steep ascent the hut is visible above the true right bank of the Dôme Glacier. It is advisable to allow between six and seven hours for the walk from Courmayeur to the sleeping-place. The building is comfortably arranged internally, and beautifully situated at a height of 10,499 feet.

An early start should be made next morning, and, under certain conditions, serious step-cutting may be necessary to reach the névé on the upper plateau of the Dôme Glacier. During a favourable season it is usually possible to traverse across the rocks to the glacier. Once fairly on the ice the route is extremely interesting. Great crevasses and schrunds abound on every hand, and considerable skill is required in finding the quickest way through the "sea of ice." Most parties require fully four hours to negotiate the ascent of the glacier and to cross the bergschrund below the *col*. This depression is situated to the west-south-west of the Dôme du Goûter, and on the ridge between that peak and the Aiguilles Grises.

From the *col* the way lies over a narrow snow arête to near the crest of the Dôme du Goûter; the course can then be finished by the St. Gervais Route and over the Bosses du Dromadaire, passing *en route* the Vallot rocks and the erections thereon.

Mont Blanc, on account of its lofty superiority and the wondrous beauty of its icy recesses, must attract mountaineers as long as the sport endures. Nevertheless these benefits are not obtainable without their accompanying drawbacks. Any of the ordinary ascents may be considered safe in absolutely settled weather, but under doubtful conditions the very charms of the great mountain become its greatest dangers. In bad weather intense cold prevails on the upper slopes, and when clouds obscure the vast fields of eternal snow the best of mountaineers may go astray. Whole parties have been lost on Mont

Blanc from these causes. However, if these dangers are thoroughly recognised and the common-sense laws of the sport properly adhered to, no mountaineer or lover of the wilder aspect of natural scenery will come away disappointed from the Great White Mountain, which draws all such men unto it.

CHAPTER XXVII

THE CHAMONIX AIGUILLES

“Where twined the path, in shadow hid,
Round many a rocky pyramid,
Shooting abruptly from the dell
Its thunder-splintered pinnacle,
Their rocky summits split and rent
Formed turret, dome, or battlement.”—SCOTT

THE Montanvert may be considered the modern Mecca of mountaineers. Those who come within the pale of Ruskin's famous criticism as followers of the “greasy-pole persuasion,” or, to put it more fairly, rock-climbers pure and simple, look upon it as the ideal centre from which they can attack the “most difficult climbs in the world.” It is generally recognised that the conquest of the inaccessible-looking aiguilles which surround it on almost every side, forms the high-water mark of what human beings can achieve on mountains in the way of defying the laws of gravitation.

Thus, the novice who possesses a proper respect for the technique of mountaineering, will scarcely be found climbing systematically at the Montanvert. Two or three seasons should be spent elsewhere before the more difficult aiguilles are attempted.

During the season the walk to the Montanvert is the most popular excursion from Chamonix. The stroll up through the pine wood, with the “thunder-splintered pinnacles” peeping savagely through breaks in the dense foliage on the right, and the more open view valleywards on the left, is altogether delightful. For the climber whose experience has qualified him to spend a climbing holiday at the Montanvert, the tramp thence means much more. As he emerges from the slopes where the pine trees thin away to a few storm-rent stragglers,

the sudden sight of the Little Dru with its stupendous cliffs makes him stand still and gaze almost with awe at the impressive sight. Moreover, he is on the threshold of the region where mighty climbers performed still mightier deeds. The memory of such men as Forbes, Tyndall, Moore, Mummery, and many others will ever be inseparable from the Montanvert. The energy of these earlier climbers was remarkable, for they have left no virgin peaks to be climbed. Possible, one might almost say impossible, variations have been exhaustively made, and scarcely anything new is left for modern explorers to annex.

The climber who is possessed of an artistic temperament cannot fail to be impressed by the external ugliness of the huge hotel; the old inn close by may remind him of those earlier and more peaceful times. The contrast is still greater as he mounts higher and gains the level veranda in front of the building, where the usual mid-day crowd are probably looking forth on the world-famed view over the Mer de Glace, encircled by the most marvellous of mountain forms. He will probably notice that when the binocular-possessed travellers arrive, liquid refreshment of the inner man takes precedent of the appreciation of natural scenery. It is wonderful to think how some people need glasses to drink in the beauties of the landscape. However, the late afternoon is usually quiet enough. Most of the crowd may have returned to Chamonix; the braver minority will have crossed the Mer de Glace to find their way to the valley again on the other side of the glacier, by way of the Mauvais Pas and the Chapeau.

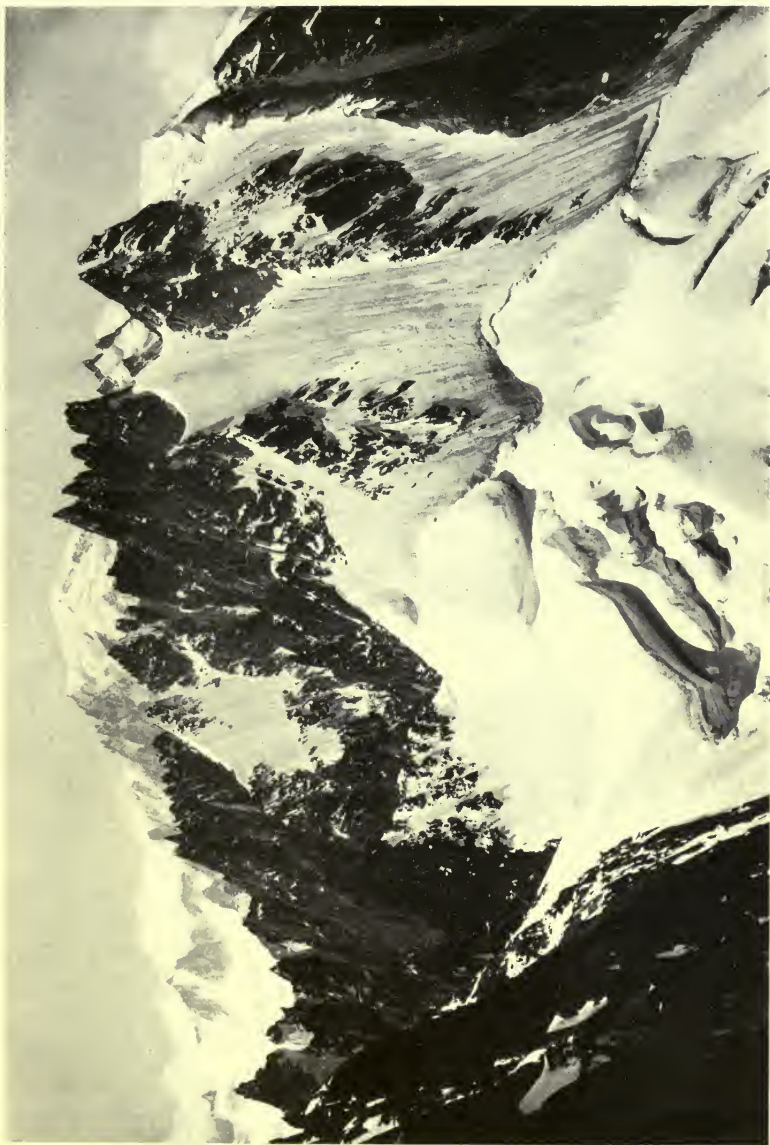
Then the climber can take in his surroundings. The Montanvert Hotel stands a few hundred feet above the level of the Mer de Glace on the true left bank of the glacier. It is 6,303 feet above sea-level. This is a suitable height from which to attack the more important aiguilles, varying as they do from 11,000 to 13,540 feet in height. These may conveniently be divided into four groups. Those to the south present a finely-massed appearance, but with the exception of the Aiguille du Géant (13,156 feet) they are almost of secondary importance to climbers staying at Montanvert. The principal summits in this direction, to the left of the prominent Aiguille, are Mont Mallet (13,084 feet), the Grandes Jorasses (13,799 feet), and Petites Jorasses (12,080 feet), the Aiguille Leschaux (12,402

feet); whilst the nearer peaks in front of the main mass are the Périades and the Pic du Tacul (11,280 feet).

The eastern group is more interesting. The culminating point of this section is the Aiguille Verte (13,540 feet), and on the ridge which stretches from its summit in the direction of the Montanvert are consecutively the Aiguille Sans Nom (13,088 feet), the Pic Sans Nom (12,583 feet), the Grand Dru (12,516 feet), and the Petit Dru (12,451 feet). Most of these are only partially visible from the Montanvert, because the nearer cliffs of the latter aiguille stand in front of them. The Aiguille du Moine (11,214 feet) is well seen in profile; practically, it forms the south-westerly retaining buttress of the Aiguille Verte. Other less familiar peaks in this group are those which surround the head of the great Talèfre Glacier; the most important of these are the Droites (13,222 feet), the Courtes (12,648 feet) the Talèfre (12,287 feet), and the Triolet (12,727 feet).

The western group, which, with the exception of the Grands Charmoz, is imperfectly seen from the front of the Montanvert Hotel, possesses by far the most popular and best-known courses in the neighbourhood. The principal aiguilles are the Midi (12,608 feet), the Plan (12,051 feet), the Blaitière (11,591 feet), the Grépon (11,424 feet), the Grands Charmoz (11,293 feet), and the Dent du Requin.

The various peaks of the Charmoz provide the most easily approached courses from the Montanvert, and the fine, serrated outline of the central mass is the most conspicuous object in the view from the hotel veranda. The fearsome-looking pinnacle to the left of the highest ridge is called the Aiguille de la République. Its ascent has been unsuccessfully attempted over and over again by means of ordinary sporting climbing methods. It has recently fallen a victim to a party armed with sky-rockets and other artificial aids. On the skyline to the left, and below this aiguille, a long jagged arête slants down to the Mer de Glace. Several hundred feet above its ice-polished base, the curious gap of Trélaporte is visible, with a well-marked couloir leading up to it. The scramble up to this small *col*, and thence by any of the many available routes up the ridge above, provides an excellent first day's training on magnificent rocks, with marvellous scenery meanwhile.



Abraham

A VIEW FROM THE TOP OF THE GRANDS CHARMOZ
SHOWING THE AIGUILLES BLAITIÈRE, PLAN, MIDI, ETC., WITH THE DENT DU REQUIN ON THE EXTREME LEFT. MONT BLANC FEET OVER THE
LONG RIDGE OF THE AIGUILLE PLAN

From the crest of the Grands Charmoz a magnificent shattered ridge, adorned with at least ten pinnacles of wondrous shape and construction, runs in a northerly direction towards Montanvert. There is not much difference in the altitude of these various towers; the last but one on the southernmost end of the ridge is generally known as the top of the Grands Charmoz. The traverse of these various peaks from north to south, or *vice versa*, provides one of the best rock-climbs in the Alps. It is the favourite expedition for the *habitués* of the Montanvert.

On the north end of the summit ridge there is a huge impassable cliff, which in its lower section assumes the form of a sharp rock arête. To the best of my knowledge this has not yet been climbed direct. At the base of this northerly precipice stand the Petits Charmoz, and the Aiguille de l'M, so called because when seen from certain points of view it presents a striking resemblance to the shape of that letter.

The ascent of these two aiguilles forms a capital introduction to the kind of climbing encountered on their loftier neighbours. The excursion can be strongly recommended to a moderately experienced guideless party. The key to the ascent of both is the Col de la Bûche, which is the snowy depression between the two peaks, the summit to the north being that possessed of the alphabetical name. The quickest way to reach this *col* from the hotel is to follow the path down and across the great slabs at the place known as Les Ponts, which leads towards the Mer de Glace.

When the moraine, which lies a short distance above the side of the glacier, is reached, there is a wide and grassy opening in the high line of cliffs on the right. The walk up this is steep and hot on a sunny morning; but, when the more gently inclined slopes below the aiguilles are reached it is soon possible to traverse over easy ground away to the left until the long couloir leading to the *col* is visible. The routes thence are so scratched with the marks of many nailed feet that minute description is unnecessary. Parties who have been trained on the more difficult English rock-climbs may be glad to know that the north front of the Aiguille de l'M can be surmounted from the Montanvert side, and the traverse of the peak made to the Col de la Bûche. This *col* is also easily approachable by the long couloir on the west.

In dealing with the loftier aiguilles in this western group it may be mentioned that the three most important expeditions follow the same route at the outset. For the Grands Charmoz, the Grépon, and the Blaitière, the track leads up from close by the old Montanvert Inn, until it passes over and around the shoulder of the Crêtes des Charmoz. On the farther side of this much-weathered ridge, which is really a continuation of the main mass of the Charmoz and the Aiguille de l'M, the path descends into the much-maligned "valley of stones." Those who have made the acquaintance of the same kind of thing on British mountains need not fear this milder Alpine variety.

The surface of the Nantillons Glacier is soon accessible, and, by means of its icy surface and a conspicuous rocky tongue which divides the frozen mass, it is possible to penetrate into the great snowy recess at the base of the magnificent group of Aiguilles.

A short description of a traverse of the Grands Charmoz in the June of 1903 will give a typical idea of the climbing encountered on the more interesting of the Chamonix aiguilles. The weather had been unsettled, and our guide and porter seemed very doubtful of success, though, from the Montanvert, the rocks on the peak seemed to the two amateurs of the party comparatively free from snow. The prospects certainly promised well when we left the hotel shortly after midnight. The sky was cloudless, and the stars glittered so brightly overhead as by contrast to make the darkness seem only the denser. It was no easy matter to follow the path winding amongst the treacherous beds of juniper bushes and other rank vegetation. Our two folding lanterns shed but a feeble light, and higher up, when the flickering flashes of fine-weather lightning continually lit up the mountain-side, we quite welcomed, and even enjoyed, the eerie experience. The curious electrical display lasted until we had passed over the great boulders below the Aiguille de l'M, and gained the welcome surface of the glacier.

Good progress was made until the steepness of the ascent warned us of the proximity of the Nantillons ice-fall. Ere long the surface of the ice was broken up into a series of crevasses running in almost every direction, whilst at several points the light from our lantern was flashed back from the frozen sides of towering séracs. The rocks on our right soon became visible,

looking black and mysterious in the uncertain light. The difficulty was to find a safe way through the icy maze to gain their more reliable surface. Fortunately the guide had visited the place a few days previously during an unsuccessful attempt on the Blaitière, otherwise it would have been advisable to await the dawn.

He boldly led us along the edge of a steep ice pinnacle, where every step had to be slowly and carefully cut with the ice-axe. I stood in the steps immediately behind him and held the lantern outwards and to the right, in order to cast a light in the direction of his work. Gradually we moved across the *mauvais pas* to the accompanying clatter of ice-chips far down into the invisible depths on the right, for a huge crevasse yawned below our fragile staircase. The excitement lasted fully half an hour, and then we arrived on some avalanche débris, which gave easy access to the rocks. These abounded in convenient ledges, and a quick scramble, for the sake of restoring the bodily warmth, landed us at their summit. The more level surface of the upper glacier was now within a stone's throw.

Our attention had been so closely riveted on the ascent that we had scarcely noticed the signs of approaching day; but, as we ate a second breakfast on a sloping rock-ledge, the magnificence of the scene was borne in upon us. Afar off, over the low ridges beyond the Petits Charmoz, we could see

"The ever-silent spaces of the east,
Far folded mists, and gleaming halls of morn."

The grey gloom which enwrapped our resting-place gradually sank valleyward, where night still lingered, and the lights of Chamonix twinkled dreamily through the semi-darkness. The horizon flashed with the golden yellows of daybreak, and, when a few minutes later we turned to continue the ascent, the pointed top of the Blaitière straight ahead caught the roseate rays of the rising sun.

As we advanced, the brilliant light crept down the long snow-slopes to the right, whilst in the opposite direction the pinnacled summit ridge of the Grands Charmoz was silhouetted black and mysterious against the eastern sky. Its huge indigo-coloured precipice seemed to drop sheer down to the glacier where we stood. The neighbouring peak of the Grépon was seen in

more wealth of detail; in profile it somewhat resembled the digits of the human hand. The great snow couloir which divides the two famous aiguilles was unmistakable. We could see that it afforded the easiest route on to the rocks comparatively close to both summits. However, distance is difficult to estimate in the case of a mountain like the Grépon, and we knew that its ascent from the top of the couloir involved a climb of many hours' duration over and around several extremely difficult gendarmes.

Our approach into the bottom of the couloir was cut off by two wide bergschrunds which stretched right across the glacier. On the extreme right we found a rickety mass of snow and icicles spanning the gulf, and we moved lightly across the natural bridge.

I do not recall the next two hours with much pleasure, for the cold was intense. This was felt all the more because the usually easy rocks on the left of the couloir and low down were snow-covered, and difficult enough to make it inadvisable that more than one climber should move at a time. Everybody fervently hoped there would be no "hitch" in the sunrise that morning, and we gazed anxiously across at the fleecy clouds which floated about the summits of the Blaitière.

About three hundred feet above the point where we had left the base of the couloir and taken to the snow-covered rocks, the choice of two routes was open to us. The long slope of snow in the bed of the gully on the right would have led us quickly up to the southern end of the summit ridge. But this was not our intention, for some of us had previously taken that comparatively monotonous route, so we traversed away to the left along a well-defined ledge. In a short time a series of deeply-cut chimneys was visible ahead. They slanted slightly to the left, and continued almost directly up to the skyline on the northerly end of the jagged crest of our aiguille.

It was a welcome sight to notice that the loose snow had to a large extent disappeared off these steeper crags; probably the high wind of the previous day had assisted in the process. We were soon all hard at work in the interior of the chimney. Except for the presence of ice the lower sections would have presented no serious difficulty, but some distance higher up a great overhanging rock stopped direct progress. The obvious way

was out to the left; but a curtain of insecure ice draped the wall. A favourable-looking crack divided the same side of the chimney still farther outwards; but its foot, which ended in space and overhung the abyss above the glacier many hundred feet below, was scarcely attainable by ordinary methods.

Someone remembered the proverbial maxim that "many hands make labour light," and we assumed that this also applied to heads and shoulders. Acting on this assumption, two of us were lowered to an awkwardly-placed ledge, so that our shoulders came to about the same level as the beginning of the crack. After securing the ropes around a large rock in the shallow cave below the overhanging boulder, the third climber descended slightly and acted as a sort of flying buttress to hold the two of us firmly against the left wall. Then the leader moved carefully outwards along the buttress, using our shoulders and arms for foot-holds, until he was able finally to stand on my head and swing up into the safe recesses of the crack. A cry of satisfaction proclaimed the success of our combination, for a few minutes later he had surmounted the crack and scrambled back into the chimney directly above us.

Obviously we could not stand on our own shoulders, so the rest of the party climbed somewhat painfully directly up the icy wall. Our fugleman certainly held the rope rather tight, but the nature of the place and situation precluded criticism on this point.

Before we emerged on the arête another somewhat similar obstacle had to be negotiated. Just when we were wearying of these cold, icy chimneys the difficulties ceased, and we stepped suddenly out of the shady side of our peak into chilly morning sunshine, which filtered weakly through a thin mist. On a convenient ledge a halt was called for lunch. This was not a success, for our provisions were frozen into solid masses, and the pieces we were able to chip away were dull and flavourless. Some oranges we carried would have served splendidly as hockey-balls. Having done duty to this perfunctory meal and packed the rucksacks, we turned eagerly to survey the work ahead.

It was quickly impressed upon us that the pleasurable part of the day was yet to come. The magnificent towers over which we scrambled were absolutely clear of snow, and their rough

surfaces yielded gratifying hand- and foot-hold. To add to the general satisfaction, the mist gradually floated off to the south, and Old Sol poured his genial rays upon us.

Then there was everything to delight the ardent rock-climber. Up narrow ridges and arêtes we scrambled, gripping their rough edges with knees together and hands atwist, realising to the full the late laureate's idea :

"He clasps the crags with crooked hands;
Close to the sun in lonely lands,
Ringed with the azure world he stands."

Then suddenly we would arrive on the diminutive top of some isolated tower and climb over it into the gap beyond and below. The exciting descent was soon made, and astride the narrow ridge lower down we were able to survey the bulky gendarme which rose ahead. Direct assault did not meet with unanimous approval, so a flanking movement was made on the left. We traversed out along tiny ledges on to the stupendous face of the sunny precipice. The rocks grew steeper and steeper until a careful movement round a vertical corner, where deeply weathered hand-holds conveyed a delightful impression of safety, revealed the way up again to the main ridge.

Now was the time to enjoy the real pleasures of our mountain sport. Great, rough, brown slabs rose tier on tier above us, well decorated with firm holds for hands and feet; while the sensational element was not wanting, for the tremendous cliff to which we clung dropped sheer to a small glacier above the Mer de Glace, about four thousand feet below.

Then along the summit ridge we clambered, through holes in the weirdly-piled rocks, up and down cracks and chimneys, over large and small gendarmes of engrossing variety, until only a short thirty-foot chimney separated us from the highest point at the southerly end of the crest of our aiguille.

The final problem was quickly solved, despite its icy interior. A few minutes later we lay on the summit and peered over into the basin of the Mer de Glace, with its incomparable array of surrounding peaks. Gazing on the marvellous scene with the encircling groups of rocky aiguilles and Mont Blanc proudly towering above them all, it was difficult to understand how a certain authority could write regarding the Chamonix aiguilles

that "as points of view they are miserable." Fortunately tastes differ even in scenery. Personally, I always consider the view from the top of the Grands Charmoz the finest it has been my privilege to see in all the Alps.

The far-distant view is of course restricted, but this is scarcely a drawback, for mountains afar off lose their character and are apt to grow featureless and monotonous in their multitude. The foreground and middle distance of the scene from the Charmoz more than compensate for the lack of distant prospect. It is worth a day's journey to have that unique sight of the Aiguille de Grépon pushing its spear-like pinnacle above the gleaming glaciers and glittering snowfields of the Great White Mountain. However, it is unnecessary to dwell further on the glorious prospect. We dared not linger long that June morning, for the snow was loosening in the sun, and avalanches and other dangers await the dilatory climber.

We speedily clambered down the upper crags, and gained the northerly, upper branch of the big couloir which divides the Charmoz from the Grépon. The steeper, southerly branch, which affords the means of approach to the rocky bastions of the latter peak, was unmistakable. The arrangement of these couloirs when seen from the opposite slopes of the Blaitière resembles a gigantic letter Y. When we entered the central, lower branch the snow was steep enough to require the descent to be made face inwards, with the shaft of the ice-axe plunged into the soft snow to act as hand-hold whilst each downward step was taken. This mode of progress continued for several hundred feet, and we were heartily glad to regain our tracks of the early morning on the true right side of the couloir.

In due course we were trudging downward through the soft snow on the Nantillons Glacier. The sound of avalanches was continually in the air; moreover, at one place our morning's tracks had been obliterated for a considerable distance by hundreds of tons of fallen snow and ice. A glance upward showed the disintegrating masses of overhanging glacier on the breast of the Blaitière. It was necessary to pass below several such places, and we ran helter-skelter across the exposed sections. We came through the ordeal safely enough, and the same good fortune was vouchsafed to us on several later occasions; but nevertheless I hold strong opinions that the

Nantillons Glacier should be regarded as distinctly dangerous except in the early morning hours.

At the foot of the glacier we met some friends descending from the Col de la Bûche, and the journey back to Montanvert was taken in leisurely time.

The traverse of the Aiguille de Grépon is usually considered the most difficult of the ordinary expeditions from the Montanvert. It has often been spoken of as the most difficult climb in the world.

The route as far as the divergence near the top of the great couloir between the peak and the Aiguille Grands Charmoz has been dealt with previously. At the top of the right-hand branch of the couloir the climber comes to a narrow gap where further upward progress seems impossible, and a glance over the edge reveals an impressive drop of a few thousand feet to the Mer de Glace. The huge bastion of the North Peak, or lower summit, rises sheer above his head. The cliff is obviously impregnable to direct attack. It has been surmounted on the left by a most sensational and difficult ascent up the south-east face of the peak, moving at first rather to the left, until a series of cracks in the tremendous slabs allow the expert to work back to the right above the overhanging portion. This route is scarcely ever followed.

The ordinary and more popular way lies up a crack to the right of the small *col* and not properly visible from that place. A slight descent, and a traverse along a convenient ledge, will reveal a deep fissure in the face where a great slab has split away from the main mass. This is known as the Cheminée Mummery, and serves to perpetuate the memory of the famous mountaineer who first surmounted the Grépon.

The Cheminée—the word crack would be more applicable—is nearly seventy feet high, and almost vertical throughout. If the inner recesses are free from ice some good hand-holds are available. The most difficult part is concentrated in the first 20 feet, and above that the expert rock-climber will find several excellent resting-places. The finish is comparatively simple.

During a recent visit to the Montanvert I heard an amusing story regarding the Cheminée Mummery. An extremely stout, German climber of untold wealth engaged six



Abraham

THE AIGUILLE DE GRÉPON FROM THE GRANDS CHARMOZ

THE SNOWY COULOIR SEEN ON THE LEFT ENDS IN THE SMALL GAP NEAR THE MUMMERY CRACK, WHICH CUTS INTO THE GREAT SLABS ON THE RIGHT AND AT A LOWER LEVEL. THE "CANNON-HOLE" IS SEEN HIGHER UP

Chamonix guides to take him over the Grépon. As each guide expects for this course the sum of £12, it will be readily understood that wealth is an important part of the climber's equipment, though it is very possible that in this case there was a reduction for quantity. This does not refer to the weighty amateur. By dint of tremendous exertion, aided by much cognac, the guides got their charge as far as the Cheminée, and four of them mounted to its summit. Then the stout amateur essayed the ascent; and, assisted by two guides who shoved from below, and the four others hauling with the rope from above, they got him nearly half-way up, and into the narrow part of the crack. Here the brave German became hopelessly jammed, for the harder they hauled from above, the tighter he stuck, and though those below made gallant efforts to rouse him to independent action by prods with an ice-axe, he relapsed into a state of semi-consciousness. It took the guides over three hours to get him and themselves out of their predicament by descending; so for that day the route up the Grépon was effectually blocked, and one party at least had to give up the attempt on that account.

To continue the description of the usual route, it may be mentioned that from the top of the Cheminée the way lies up easy rocks to the left, where, on account of the sunless aspect, ice is often present. A few minutes later a big hole in the ridge is visible ahead. This is known as "the Cannon Hole"; and passing through this natural doorway, the climber emerges on the great cliff above the Mer de Glace. The contrast between this warm and sunny situation and that on the opposite or Nantillons side is usually most agreeable.

The way upward rises over huge slabs, weathered into cracks, corners, and sharp arêtes, all of engrossing interest to the climber. It is usual to skirt round the northern summit on the right, and, after a steep descent followed by a short scramble up a buttress, a ledge on the crest of the ridge is gained, which terminates suddenly on every side except that by which it is approached. Peering over the farther edge the climber will see that the north peak is cut off from the rest of the mountain by an overhanging step in the ridge nearly 100 feet in depth.

This is the Great Gap, and it will be noticed that a curious

rock stands on the ledge above it, seemingly placed there by a kindly Providence to act as a belaying-pin. A doubled rope works successfully round its smooth sides, and by this means the whole party descend on to the narrow ridge at the foot of the Gap. It is a decidedly eerie feeling to be dangling in mid-air amid such surroundings. The narrowness of the remarkable Aiguille is here strikingly apparent, and a glance downward in either direction reveals the surface of the level-looking glaciers which encircle the base several thousand feet below. Heavy climbers usually feel at this point that one thickness of the thin Alpine rope seems strangely inadequate to sustain their weight, despite the guaranteed tests by reliable scientists.

The ridge that forms the landing-place continues along in the direction of the forbidding-looking tower which forms the actual summit. Several gendarmes are encountered *en route*, and one of the bulkiest is passed by walking along a remarkable ledge on the Mer de Glace side of the peak. I have heard this called the Rue de la Bicyclette. The ubiquitous follower of this mode of locomotion has not yet ridden this place. When he does so, there will be just cause for the warning notice which recently disfigured the north-east ridge of the Matterhorn: "This hill is dangerous to cyclists."

The final stretch to the summit is not as difficult as appearances would indicate; the last chimney requires considerable muscular effort, but a broad ledge at its foot affords a splendid base of operations. The leader can surmount the lower, overhanging portion by using the second climber as foot-hold.

The descent is made down the perpendicular and smooth south-westerly face of the peak. The place may nowadays be regarded as almost unclimbable by ordinary methods. By using the doubled rope looped through suitably placed *pitons*, and in some places round outstanding, rock belaying-pins, it is possible to arrive, after descending some easy ledges, into the gap known as C. P. This name originated through one of the earlier explorers who climbed thus far leaving these initials on the rocks. The course thence follows over comparatively easy rocks down to the Nantillons Glacier and valleywards.

The ascent of the three peaks of the Blaitière is also made from the Nantillons Glacier. The great, ice curtain, which descends from the snowy ridge connecting the central and

northern summits, is an imposing feature of these Aiguilles when seen from either the Grands Charmoz or the Grépon. A more or less well-defined rocky ridge rises to the left of this hopeless-looking slope. The rocks terminate on a minor summit, from whence an easy snow arête leads to the depression between the peaks. Thence the Northern Aiguille, which is the one seen from Chamonix, can be gained in half an hour by way of some simple rocks. The central and highest point is not so easily overcome. From the snow *col* it is advisable to move to the south-east to the foot of the final rocks. There on the right a small, slanting, ice-filled gully usually requires careful treatment, until it is possible to leave it and take to the rocks of the south-east face. These yield about an hour's interesting climbing, and lead direct to the final cairn. The south summit of the Blaitière and the Aiguille du Fou in its vicinity are scarcely ever visited; they can both be approached by rounding the rocks of the central peak on the east side.

The other two principal Aiguilles in this group, the Plan and the Midi, are, comparatively speaking, lacking in interest. Both are more or less easily accessible by long snow walks up the Vallée Blanche on their southerly slopes. In each case the final section provides some indifferent rock-climbing of about a quarter of an hour's duration. Both peaks have also been attacked from the side facing Chamonix; the way up the Aiguille du Midi from that direction was discovered by a party of famous pioneers, but is not used much nowadays on account of the danger from falling stones. The long, fantastic-looking buttress and precipitous ice slopes on the Chamonix front of the Aiguille du Plan defied an expert party led by the late A. F. Mummery, and the mountain has achieved distinction on this account. The following year, 1893, the same enthusiast varied his means of attack, and successfully gained the summit from this side.

The Dent du Requin forms the culminating point of the long ridge running south-east from the Aiguille du Plan. It is becoming a favourite excursion for experts staying at the Montanvert. The route follows up the Mer de Glace, until it is possible to mount the ice and snow slopes leading to the south face of the peak. The route up the rocks is somewhat

circuitous, and near the top some complicated as well as difficult problems require careful attention.

Within the last two years this western group of the Chamonix Aiguilles has received exhaustive attention from expert parties led by the finest rock-climbing guides the present generation has known. Marvellous records have been made, the most notable of which have been the direct ascent of the Grépon and the Grands Charmoz from the Mer de Glace.

Of the eastern group the Petit Dru is the expert rock-climber's favourite, whilst the loftier Aiguille Verte provides suitable entertainment for the mountaineer who prefers some snow and ice work. The former peak and its neighbours, the Grand Dru, the Pic Sans Nom, and the Aiguille Sans Nom, are best attacked from the new cabane which stands on a rocky eminence in the midst of the Charpoua Glacier.

Probably the finest ordinary expedition in this group is the ascent of the Grand Dru, especially if, after crossing the sensational overhanging gap separating the top from that of its slightly lower namesake, the descent is completed by the interesting chimneys and slabs on the west face of the Petit Dru.

The Aiguille Sans Nom defied the attempts of expert parties until as recently as 1898. In that year the Duke of the Abruzzi made the first ascent, namely, by the great couloir separating the peak from the Aiguille Verte. During the descent the party was exposed to considerable risk from falling stones, and decided to spend the night out on the mountain. In 1902 two noted English climbers, the late R. W. Broadrick and Mr. A. E. Field, discovered a way of avoiding the danger as well as adding largely to the merits of the expedition. Leaving the sleeping-place on the Charpoua Glacier about midnight, they climbed the rocks by a route invented by Monsieur Fontaine, which brought them to the top of the Aiguille shortly after 9 a.m. After a short halt they continued along the shattered ridge to the snowy crest of the Aiguille Verte, which occupied about four hours and a half of valuable time. The descent was made by the Moine Ridge, and, owing to the snowy conditions, they did not arrive on the Glacier de Talèfre below the rocks until the last glimmer of daylight was fading,

over six hours later. Montanvert was gained safely by lantern-light, and thus ended one of the most remarkable expeditions that has been made in the district.

The usual way up the Aiguille Verte begins with the walk to the Couvercle near the famous Jardin on the Glacier de Talèfre. The summit is approached by way of the long snow couloir, which rises from the glacier to the crest of the snow ridge between the Verte and the mountain known as Les Droites. There are many variations of this route; but the Aiguille Verte has become possessed of an unenviable reputation for falling stones, and it is not often climbed.

The Aiguille du Moine suffers from the same drawbacks as its loftier neighbour. Its ascent is usually made by way of a snow and rock gully on the south face of the peak, which is approached from the Couvercle over the small Glacier du Moine.

The steep south-west ridge of the Aiguille Moine, which is seen so grandly in profile from the Montanvert, offers the most interesting way up the mountain. Remarkably fine slabs are met with *en route*, and when these become too smooth or perpendicular they can usually be circumvented on the left-hand side (see illustration, p. 46).

The following incident, which is probably the narrowest escape from a serious accident I have ever seen, will accentuate one of the dangers of the Aiguille Moine. We had arrived on a fairly broad ledge near the top, and two of us had unroped in order to photograph the rest of the party on the final slabs. The guide, whose name it would be kinder not to mention, was helping me with the camera. To secure the best point of view we had to traverse along some easy ledges, where some difficulty was experienced in finding a suitable place for apparatus and operator.

After testing a large mass of rock at a lower level, my companion stood on it and steadied my foot with one hand, whilst with the other he held a leg of the tripod. I was just about to make the exposure when an ominous grating sound came from directly below, and I felt a sharp tug at my boot. A quick downward glance showed me my companion starting to slide down the steeply inclined face of the precipice on the mass of rock, which had given way beneath him.

Trained by long experience of peril and sudden danger he seemed instantly to realise his position. Just before the slab darted down 1,000 feet into space, he grabbed a firm knob of outstanding rock which was luckily within reach. He was left dangling over the tremendous cliff suspended by one hand. All of us had some anxious moments until we saw him, with admirable presence of mind, gain a secure hold for his feet. He soon scrambled up to my level again, none the worse for his impromptu ride, but looking decidedly scared and pale, despite his sun-bronzed complexion; and as an experienced mountaineer he was much annoyed with himself for having an accident on such an easy place. The injury to his pride seemed to weigh more with him than the danger through which he had gone.

The Aiguille d'Argentière (12,799 feet) and the Aiguille du Chardonnet (12,543 feet) are situated to the north-east of the eastern group, and separated from them by the long Glacier d'Argentière. Both of these provide first-rate expeditions which can be made from the Montanvert, if the first day is spent in crossing to Lognan (6,293 feet), by way of the path by the Chapeau and the Châlets de la Pendant.

Of the southerly group very few of the peaks are easily accessible from the Montanvert. Most of these, including the Grandes Jorasses, are ascended from the southerly side of the range or from Courmayeur. However, the Aiguille du Géant may be conveniently visited by way of the Col du Géant, and the usual course is to spend the night in the comfortable hut on the pass. Next morning the base of the Aiguille can be reached after two hours' progress over loose rocks and patches of snow. A small snowfield, whence the actual rock-climbing begins, is visible from the hut.

The way at first runs along a small, horizontal ledge that ends below a steep buttress. This is much weathered and provides good holds until a fixed rope assists in overcoming a short, difficult stretch, which leads into a comparatively easy chimney. This emerges on a small platform on the west arête of the Aiguille. Above this some huge slabs must be climbed by using the fixed ropes, and ere long a ledge leads in a northerly direction to the foot of a narrow chimney over 120 feet high. A short distance above the exit it is possible

to traverse across to the face of the peak overlooking the Col du Géant. Fixed ropes then predominate over the most difficult portion to the North Summit. The highest point can then be reached comparatively easily in less than half an hour, the last fixed rope assisting materially in the process.

The sojourner in the cabane on the Col du Géant cannot fail to notice the wild grandeur of the Aiguilles on the southerly front of Mont Blanc. The Aiguille Blanche de Pétéret and the Aiguille Noire de Pétéret, with the curious pinnacles of the Dames Anglaises on the ridge between the two, provide the most imposing centre of attraction.

The two high Aiguilles possess an unenviable reputation for loose rocks, and those who visit "the English Ladies" are also often chased away by their stone-throwing propensities. All these peaks are best attempted from Courmayeur, and preferably under the leadership of a first-class local guide who is conversant with their peculiar dangers.

From the details of this chapter it will be evident that all the principal Aiguilles of Mont Blanc cannot be climbed in a single holiday such as ordinary mortals, or even schoolmasters, are blessed with. A glance at the map will convey some idea of the vast number of the less important peaks. It is no exaggeration to say that the holidays of an average climber's lifetime could be spent in the district without his gaining a really exhaustive knowledge of these wonderful mountains with their fantastic ridges, impending ice-falls, and gigantic precipices. Pessimists may urge that the lifetime of such a climber is not likely to be a long one. This, of course, depends largely on the skill and foresight of the individual; but though most of the expeditions are, technically speaking, difficult, they are not as dangerous as some of the easier and popular courses in other districts. The record of accidents amongst the Aiguilles of Mont Blanc is so small as to be considered almost negligible. Doubtless this is due to the peaks being attacked mostly by experts.

Of recent years respect for the Aiguilles has shown signs of diminution, and only the intervention of Providence has prevented serious calamities. It is to be hoped that all mountaineers who explore the most difficult climbs in the

world, will realise this fact, and neither by example nor precept induce inexperienced followers of the pastime to incur risks or difficulties which, by their terrible results, may bring disgrace on the noblest of all sports—mountaineering.

CHAPTER XXVIII

THE AUSTRIAN ALPS—THE DOLOMITES

“Come on, sir, here’s the place: stand still.
How fearful and dizzy ’tis to cast one’s eye so low.”

HOW remarkably applicable are these lines, by the Bard of Avon, to those fantastic, limestone obelisks which attract the climber to the Austrian Tyrol. It is no exaggeration to say that these peaks provide the most sensational ascents in Europe. The poet’s words are almost those that a Dolomite guide might use, when clinging to the impressive face of the Fünffingerspitze, as he landed his Herr up to a “firma loca.”

The advice “stand still,” and, as a further incentive, “behold the fall,” are often necessary on these exposed peaks, where the party so often consists of two climbers only, the guide and his patron. Those who are accustomed to leading up difficult places with an “uncertain quantity” at the other end of the rope, will understand the peculiar feelings of the guides. Accidents have occurred through the amateur’s failure to “stand still.” This is probably one reason why some guides, whilst leading, have been known to untie the rope from their waists and carry it up in their hands. However, such unorthodox practice is altogether unjustifiable.

Though his advice is sound it is far from likely that Shakespeare ever heard of the Dolomites. It is even possible that he might have made the same mistake as that recorded of a certain agreeable young lady at a dinner party. When the gentleman next to her stated that he had just returned from an enjoyable time amongst the Dolomites, she replied, “Indeed, I have always understood that they are a most pleasant and delightful people.”

Comparatively few English travellers visit the Dolomites, and plenty of persons who know the Swiss Alps fairly well have

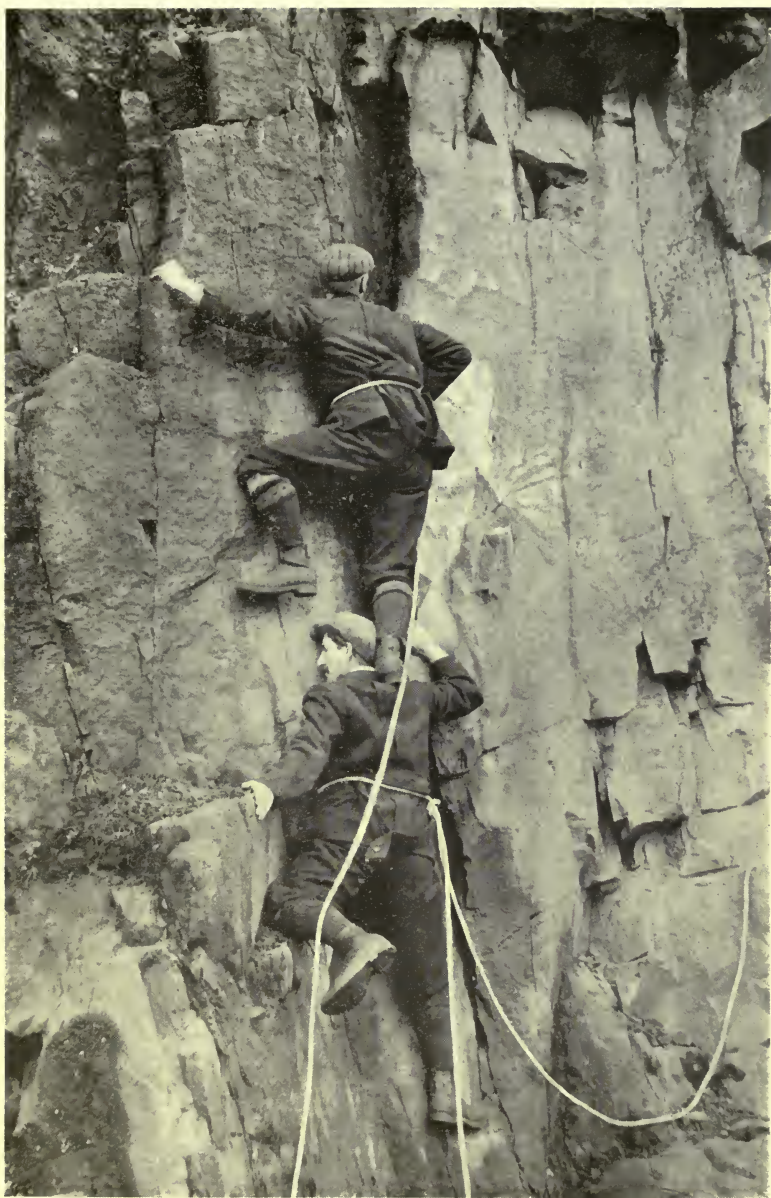
never heard of these astonishing inaccessible-looking mountains. English climbers especially seem to have neglected the district, and thus many of the peaks remained virgin long after nearly all the Swiss Alps had become practically overrun. Most of the Dolomite summits were first ascended by foreigners. German and Austrian climbers have always looked on this region as their special preserve, and several Italian cragsmen have also achieved some remarkable performances.

The great cliffs themselves perpetuate the memory of Zsigmondy, Purtscheller, Schmitt, and Sinigaglia; whilst the late Norman - Neruda and the Rev. Sanger - Davies achieved fame and notoriety through their connection with the district. What man worthy of being called a mountaineer has not heard of Neruda's wonderful climbs on the Fünffingerspitze, or of Sanger-Davies's even more wonderful sketches of his own unique way up the Kleine Zinne?

Surprise is very often expressed at the continued neglect of Dolomite climbing by the British followers of the sport. Various reasons have been given; but I venture to think that the real cause has not been generally recognised. These peaks appeal to the rock-climber, pure and simple; they are practically devoid of serious glacier and snow practice. These remarks apply equally well to our own British mountains. Cragsmen who know our homeland rocks intimately and realise their opportunities, feel small attraction for the far-distant peaks. This idea is constantly fostered by those of our own countrymen who have tasted of the joys of the Dolomites; with few exceptions, they scarcely ever repeat the experience. It used to be the height of my ambition to visit the Dolomites with the late Owen Glynn Jones, but he always said "No! I will never go again; we have plenty of rock-climbing at home!"

However, opinions differ widely on this matter, and many appreciate to the full the charms of the Dolomite country. The mountains, which are situated in the south-western corner of Austria, in the Tyrol, possess many attractive features. There are above a hundred well-known peaks suitable for the operation of the mountaineer, and with one exception none of them rise above a height of 11,000 feet, whilst there is a curious conformity to this altitude throughout the higher groups.

But, as it is so often the case, the loftiest peaks are the least



Abraham

'GIVING A SHOULDER'

interesting. The Pelmo, Antelao, Marmolata, and Monte Cristallo were favourites of the early pioneering days, but they have yielded pride of place in climbing interest to the lesser Fünffingerspitze, Kleine Zinne, Winklerthurm, and many other still smaller "mites."

All the courses are short compared with the average Swiss peaks; strong walkers can, with one or two exceptions, easily ascend any of them in a day's expedition, and very often it is possible to "bag" two or three summits in a single excursion. However, those who prefer to take their pleasures more leisurely will find that a comfortable night can be spent at any of the admirable huts built and equipped by the Austrian Alpine Club. Such an experience will afford the chance of watching the sunset on those wonderful rocks, whose marvellous colouring is one of the features of this region of brilliant contrasts of both shape and shade.

The best-known climbing centre in the Austrian Tyrol is Cortina, and the Ampezzo Dolomites, in its immediate vicinity, yield expeditions of varying shades of difficulty. English climbers will usually make this the first object of their journey, and it is best approached by way of Innsbruck, Franzensfeste, and Toblach. The village stands about 4,000 feet above sea-level, and the hotels are nowadays comfortable, well conducted, and reasonable as regards tariff. The two latter qualifications apply also to the local guides; and, all things considered, compared with other Alpine districts, a very cheap climbing-holiday can be spent in the Dolomites.

In many climbing resorts, especially in Great Britain, the old saying, "A prophet is not without honour save in his own country," can be equally well applied to the mountains. The natives know nothing of and care little for their own mountains. The case is just the opposite at Cortina, everybody seems inspired with an interest in mountaineering; even the Tyrolese babies, with their yellow curls and chubby, tanned faces, matching the colour of the sun-burned mountain-grass as well as their native rocks, are no exception. It is no uncommon sight to see the "raw material" of the future guide, almost before it can walk steadily, struggling bravely to surmount the tiny boulders scattered around its home.

However, there is a more practical and useful outcome of this

interest in the enthusiastic local branch of the Austro-German Alpine Club which exists at Cortina. It is honoured by the possession of a resident president, who is always courteous enough to furnish English mountaineers with useful information and suggestions. At present there is no climbers' guide-book in English dealing with the Dolomites, and good maps are rare. The third volume of the *Hoch Tourist in den Ost Alpen*, besides dealing with this district, is worth procuring for the maps alone.

Cortina has been the home of famous guides. Lacedelli and Innerkofler, of the Sexten Thal, are names of more than local respect and fame; the early explorers of the Dolomites were led to victory by Alessandro Lacedelli and Michel Innerkofler. Their successors of modern times are many of them excellent guides, and some are perfect masters of the craft of rock-climbing on the special formations of their native peaks. Of snow and ice craft they know comparatively little; they possess scarcely any experience of glacier practice; and should any steps require cutting during a serious expedition, some excitement usually prevails. Many of us are familiar with the pictures of our childhood which portrayed a gaudily-dressed, Tyrolese guide with an ice-axe as long as a clothes-prop. Even nowadays the originals of these are sometimes met with in certain Dolomite districts. It seems to me that a penknife or even a slate would be a more effective instrument for step-cutting than a Tyrolese ice-axe.

The rough, horny surface of the Dolomite rock affords marvellous gripping powers, and the limestone is often so weathered into suitable excrescences that continuous vertical places can be negotiated without severe technical difficulty. The trouble consists not so much in finding the holds on the vertical stretches, as in making use of them without exhausting the muscles. Places which look impossible, and which would prove impassable on other formations, are negotiated with more or less ease on these firm, tenacious rocks. "As rough and as firm as a Dolomite" has become almost proverbial when describing climbs in other lands.

The peculiar structure of the cliffs, and the prevalence of sloping ledges or slabs which often offer the only foothold, render the use of string or rope-soled shoes almost a necessity.

This special form of footgear is known as *Kletterschuhe*, or *scarpetti*. They can be bought in Cortina, where they are sometimes called *scarpe da gatto*, but they can also be procured at Vienna, Munich, or Innsbruck. Several English experts use indiarubber-soled shoes or boots, and consider them superior to the *Kletterschuhe* for general use, such as walking up to the foot of the rocks. Doubtless they are better in many ways, but only the variety with the red rubber soles should be used, and these, by the way, might with advantage be tried on purely rock peaks elsewhere. However, if the conditions become wet or icy, rubber soles are a snare and a delusion; *scarpetti* should be carried as a reserve.

In most cases ordinary mountain-boots are worn as far as the foot of the rocks and there changed for the more suitable *kletterschuhe*. A dealer in old boots could make a grand collection if he walked round the base of some Dolomites during the height of the season. However, it often proves an inconvenience to have to leave the nailed boots behind, especially if the way be missed in the descent, or the traverse of a peak be contemplated. Under the latter circumstances it is a common practice to hire a porter to carry the footgear round to the other side of the mountain. In the Cortina district, where so many "fancy routes" up the so-called wrong sides of the peaks are fashionable, it is a usual thing to encounter several pairs of empty boots on the summit awaiting their owners. A porter has probably brought them up by the ordinary, easy way.

This disuse of nailed boots on the ordinary, Dolomite courses renders them very "tricky" for guideless parties. The rocks are unscratched, and the way is often difficult to find. In fact, guideless climbers on an unknown mountain have often to make what is practically a first ascent; they are more likely to discover a variation than to follow the exact route. Complications often arise through the inability to find the same way down again, and some amateurs carry pieces of coloured paper, which is procurable in Cortina, to affix on the rocks at important places during the ascent.

The freedom of the Dolomites from climbing accidents used to be something in the nature of a boast of the explorers of a few years ago. Nowadays no district in the Alps is more prolific in fatalities. The year 1906 was the worst on record in

this respect. A large number of the principal peaks claimed victims, though it should be mentioned that no British climbers were included in the sad list.

Mr. E. A. Broome, an English authority on the Dolomites, appears to think that there is no special credit attaching to this immunity on the part of our fellow-countrymen. If they do not visit these mountains they cannot get killed there, and he further urges that

“On Dolomite faces, in perilous places,
More safety we all of us find—
True sportsmen and shoddy—in absence of body
Than even in presence of mind.”

Doubtless the long list of catastrophes is due to the altogether unusual popularity of Dolomite climbing amongst young Continental, especially German and Austrian, mountaineers. Students, for the most part from the Universities, find these mountains very easy of approach and inexpensive as holiday resorts. Probably the majority of them attempt guideless ascents, and it can scarcely be said that a judicious choice of expedition is generally made. Solitary climbing also prevails to a regrettable extent.

More and more difficult courses are being discovered and exploited. The spirit in which much of the Dolomite climbing is undertaken recalls the youthful game of “cappers” or “follow your leader.” It was usual for an active youngster to lead the way on some peculiarly daring and possibly foolhardy feat, such as walking along a narrow coping of some bridge or paling, or climbing an exceptionally rotten or dangerous tree. Some failed, some “funked,” others came to grief, whilst a few succeeded. The same spirit applied to rock-climbing, whether in the Dolomites or elsewhere, is bound to result in serious calamities.

Much of this kind of climbing goes forward nowadays around Cortina. Fancy routes have been forced up some of the peaks where, as one of the guides once said, “only flies should go.” I do not propose to say very much about such courses, but will just mention some of the more ordinary, yet delightful expeditions in the vicinity of Cortina and the other favourite centres.

The town of Cortina itself is rather shut in by the rock-peaks which surround the valley on every side, and English climbers usually prefer to make the Hotel Faloria their headquarters. This is airily situated 400 feet above the town.

The best introductory climb in the district is a visit to the Cinque Torri, which is seen from the hotel so conspicuously on the other side of the valley. The north peak of the neighbouring Nuvolau can be combined with the same excursion; it has been ascended on practically all sides. The eastern front provides the popular route, but that on the north-east is favoured by experts.

The Cinque Torri is formed of a weird mass of enormous rocks, which rise suddenly from a rough upland plateau. On account of their strange position they are mostly seen outlined against the sky, and they have been fancifully compared to many things, from the broken stump of a carious tooth to the "ruins of a temple dedicated in a remote age to some Alpine Isis."

The highest tower (7,760 feet) is split from base to summit by a tremendous fissure nearly 600 feet high. It is possible to penetrate by this opening right into the heart of the mountain. The interior is broken up into masses of shattered limestone, wedged and bridged in every attitude. Chimneys run right up on practically all sides, and numerous ways can be found up the vast internal funnel to the summit. It would be difficult to imagine a better place for a guideless party to spend a day learning the peculiarities of Dolomite rock, and though the highest tower is the centre of attraction, some of the adjacent pinnacles offer more interesting scrambling.

Undoubtedly the favourite peak at Cortina is the Croda da Lago (8,813 feet). The top can be gained in numerous ways; that by the eastern face is most frequented, and the steep northern arête, though more sensational, is only slightly more difficult, whilst the western face of the Croda is possibly the finest of the more reasonable routes.

Probably more travellers reach the summit of Monte Cristallo (10,492 feet) than any other of the more ambitious Dolomites. It can be attained from Cortina without any undue exertion by walking through most picturesque and varied scenery to the Inn at Tre Croci, sleeping there, and climbing

the peak next morning. This refers to the easy southern face, but there are more difficult courses on the north and east, whilst that on the westerly side fronting Cortina provides the *pièce de résistance* of the Cristallo. This mountain possesses a melancholy interest in that the small glacier on the easterly side was the scene of the fatal accident to that most distinguished of Tyrolese guides, Michel Innerkofler. He was crossing the incipient bergschrund with two companions, and whilst on an insecure bridge it suddenly collapsed, precipitating him head first against the icy wall. Thus perished the hero of the Kleine Zinne and many other difficult mountains.

The most imposing objects in the view from the Faloria are the Tofane di Mezzo, di Fuori, and di Razes, on the opposite or westerly side of the Ampezzaner Thal, wherein reposes Cortina.

These three peaks are all about 10,600 feet in height, the foremost being the loftiest and possessing the least beauty of form or outline. The group loses somewhat in interest because each of its units possesses an easy side; in fact, the three summits are often ascended in a single day.

The Tofana Hut stands on the Forcella, encircled by two gigantic spurs of the Tofane. Like very many others in the district, it was erected by the D. Oe. A. V., which apparently mystic letters mean the Austro-German Alpine Club. A large number of these huts could evidently be dispensed with; they are often only two or three hours' walk from Cortina or other centres. As a rule, they are crowded by Continental travellers, who almost invariably belong to this large Club, thus securing exceptionally cheap terms as well as preference. During the season it is well to remember these details when expecting accommodation at the Tofana Hut, or indeed any other in the Cortina district.

There are numerous sporting ways up the Tofane; probably the best in each case lies up the eastern faces overlooking Cortina. The south face of the Tofana di Razes is best visited direct from Cortina. It is one of the more recently discovered courses, and provides about six hours of entertaining rock-work.

The south south-easterly face of the Tofana di Mezzo possesses one of the best known courses in the group. This is known as the "Via Inglese," and almost 1,200 feet of cliff has to be scaled in gaining the highest point.

Farther south of the Tofana group and beyond the Croda da Lago towers the well-known crest of the Pelmo (10,394 feet). It is often spoken of as one of the Cadorine Dolomites, but it can conveniently be approached from Cortina by taking the preliminary drive to San Vito and then walking up to the Capanna Venezia. East of the village, and grandly seen from the Pelmo on the opposite side of the valley, towers the mass of Antelao, "that venerable patriarch of the Dolomites." There are simple routes up both of these peaks, but experts have found magnificent climbing on the Cadore face of Antelao; and the north wall of Pelmo provided an English party with several hours of exciting and sensational *Kraxerei*.¹

The beautiful mountain of Sorapis disputes with the Croda da Lago the honour of providing the best sporting ascent around Cortina. Though not visible from the town itself, in most of the views from the surrounding summits its turreted bastions and noble form appeal strongly to the mountaineer. The top is usually reached by the south-easterly face over fairly easy rocks, but the course from the north provides a much more interesting climb.

The Pfalzgau Hut, at the foot of the north face, is reached from Cortina by way of Tre Croci after about three hours' walking, and this provides comfortable night quarters for those who prefer to lighten the labour of their pleasures. It is a muscle-trying performance to climb the north front of Sorapis direct from Cortina.

There are several other less noteworthy expeditions to be made from this centre; the best of these are, in order of merit, the Piz Popena, the Croda Rossa, and the Punta Cesdalis. Before leaving the Ampezzo district, it should be mentioned that the Dolomites of the Sexten Thal are only a day's journey away. It is a beautiful drive to Misurina, whence the spiry towers of the Drei Zinnen are conveniently approached. The Kleine and Grosse Zinne are the centres of attraction, and they are both usually climbed from the saddle dividing them.

The former peak is one of the most noted of the Dolomites. The ascent by the south face, which is the usual route, begins with short rock walls and chimneys, which gradually increase in interest until the celebrated traverse is reached. This is

¹ Crag-climbing.

in reality a fairly broad ledge, and leads around the sensational face into the foot of the Zsigmondy Kamin on the final wall. The ascent and return to the saddle can be easily completed under three hours, and the less difficult Grosse Zinne can be completely negotiated in two and a half hours more. It may be mentioned that it has lately become fashionable to traverse the Kleine Zinne by climbing the more difficult north face and descending by the ordinary route.

Other peaks in this group are the Zwölferkofel (10,118 feet) and the Drei Schusterspitze (10,364 feet), both of which are best attacked from the Sexten Thal.

I once heard a remarkable story concerning this district, told, as a personal adventure, by a celebrated climbing cleric, who has tackled several of the Dolomites single-handed. This apostle of truth and solitary scrambling had climbed, with extreme difficulty, up to the end of a narrow ledge which ran for a considerable distance around the face of a fearfully exposed precipice. The rocks overhung above and below, but he felt certain that there was a way off the ledge at its farther end. Strange to say, he saw a bull coming along the ledge towards him. Retreat or escape in any direction seemed impossible. However, necessity is truly the mother of invention, and he fixed the adze end of his ice-axe on the edge of the ledge and suspended himself by the shaft over the precipice, until the bovine mountaineer had passed along. Such a position may seem dangerous enough, but, as a matter of fact, the cleric said that he only felt really frightened when the animal stopped a moment and sniffed at the head of the ice-axe. When the danger was past, of course he swarmed up the shaft of the ice-axe and went on his way rejoicing. Bulls are uncommon on Dolomite ledges, and despite the status of the *raconteur*, I have even known fishermen doubt the truth of this story.

Most of the other principal Dolomite groups are now rendered more accessible by the completion of the new Austrian Government road, through the heart of the mountains from Cortina on the east to the Karersee Hotel in the Rosengarten group. The road is magnificently engineered and constructed, and following under the cliffs of the Tofane, passes over the Falzarego Pass eventually to reach Pieve, in the Buchenstein valley.

From this place a short *détour* can be made to Caprile,



THE FÜNFFINGERSPITZE FROM THE NORTH. A TYPICAL DOLOMITE PEAK
FROM A SKETCH BY THE AUTHOR

whence the Civetta and the Marmolata can be ascended. This latter peak has been well called the "queen of the Austrian Tyrol," and with its height of 11,020 feet above sea-level, it dominates all the Dolomites. From the summit the views are extensive, and afford an ample reward for the somewhat dull walk thence by the ordinary way which rises from the inns on the Fedaja Pass. Beyond the vast complicated series of surrounding peaks, with the "organ-pipe-like" front of the Civetta occupying pride of place, are visible the distant ranges from the Glockner and Venediger to the Oetzthal, Ortler, and Disgrazia; whilst far away to the south are dimly discernible the Venetian lagoons and the Adriatic.

The Marmolata has fallen a victim to those in search of "fancy routes," and the Südwand has been said to afford the best climb in the Dolomites. If the quality is on a par with the quantity, then this must be so; for there are over 2,000 feet of almost perpendicular rock to be negotiated. Those who made the second ascent in 1902 spent 28 hours on the face, but an expert English party has recently completed the course under six hours' actual climbing.

Continuing the drive along the new Austrian Government road, the next important centre the climber encounters after leaving Pieve, and crossing the Pordoi Joch, is Campitello. The hotels here are now comfortable; and sanitation has been so improved that the place may be regarded as the best starting-point for the Langkofel and Sella groups.

The most famous peak in this district, and probably in all Dolomites, is the Fünffingerspitze. Seen from the northerly or St. Ulrich side, whence it is often attacked by way of the Langkofel Hut, the remarkable outline fully justifies the name of the "Five-finger-peak."

The usual course up this most inaccessible-looking Dolomite leads first up the south face to the Daumenscharte, or the great gap between the "thumb" and the other digits. From the Col the steep wall of the "first finger" is scaled, and a hundred feet or more of rope is generally used by the leading climber before anchorage worthy of the name is obtainable. This is one of the most difficult sections of the *spitze*, though the beginning of the final section before the highest finger is gained very often defeats even experienced parties. This *mauvais pas* consists of

a stiff ascent up a steep ridge, until it is possible to make an exposed traverse to the right into an ice-chimney.

The Daumenscharte route is for the most part on the east-south-east side of the mountain, and the next course in order of increasing difficulty is the Neruda Kamin on the north side, whilst the most trying ascent of all is by the Schmitt Kamin on the south. Several accidents have happened on the Fünffingerspitze; but the loss of Norman Neruda, who was stricken with sudden illness whilst ascending the south side of the peak by the Schmitt Kamin, was one of the saddest events in the annals of mountaineering.

Other fascinating ascents in the neighbourhood of Campitello and St. Ulrich are the Langkofel by the Felsenweg, or the more difficult eastern route, the Zahnkofel and the Grohmannspitze. Another easy day's journey along the new road will take the mountaineer into the centre of the Rosengarten group, where the Karersee Hotel provides splendid accommodation, and occupies an ideal situation from which to attack climbs of all degrees of difficulty and interest.

The finest expedition from this wonderful hotel is the traverse of the three peaks of the Delago, Stabeler and Winkler Thürme. These striking pinnacles are best visited from the new Vajolet Hütte, which is attainable after about three hours' walk over the Tschagerjoch Pass. It is advisable to traverse the trio from north to south. The first part of the course up the sensational front of the Delago is possibly the most difficult section, whilst the traverse and descent of the Winkler Thürme sustains the excitement to the end.

Numerous expeditions can be made on the Rothwand and Rosengarten above the Karersee, but the following are the most engrossing problems in the vicinity, the Teufelswand-Spitze, Tscheiner-Spitze, and Rosengarten-Spitze; whilst the Latemar peaks on the opposite side of the valley are worth serious attention.

The remaining group is generally known as the San Martino Dolomites. The narrow valley wherein reposes the village of San Martino di Castrozza is in the southerly end of the range. On the eastern side of this beautiful, pine-sequestered, mountain retreat rise, apparently overhead, the great peaks of Cima di Vezzana, Cimone della Pala, Rosetta, Pala di San Martino,

Cima di Ball, Cima della Madonna, and the other striking pinnacle of the Sass Maor. The traverse of the Cimone della Pala and the ascent of the Rosetta by the west face are probably the two premier expeditions for experts.

Amongst the comparatively easier courses the Cima della Madonna, the traverse from the Campanile di Val de Roda to the Cima di Ball and the passage over the Sass Maor from north to south are all worth attention.

There are several famous cave pitches on the descent of the south side of this latter mountain which are negotiated by means of threaded¹ and doubled ropes. One of the most expert of English rock-climbers, the late Joseph Collier, was very partial to this Dolomite region, and he used to relate an amusing adventure which happened on the Saas Maor. He was descending the south side with two first-class guides, Bettega and Stabeler. One of these came of a German-speaking family and the other was Italian, so there was a certain amount of friendly rivalry existing between them. In the final big cave, Bettega was the last to descend the drop, and he was being lowered by Stabeler by means of the rope threaded behind a wedged stone. But when Bettega was half-way down Stabeler tied his end of the rope round a big boulder inside the cave and left Bettega dangling in mid-air. Whilst suspended thus and exhausting his vocabulary of Italian imprecations, they added insult to injury by devouring their lunch in close proximity. When he was at last released from his state of suspense Bettega said very little, but he enjoyed his revenge lower down on the mountain. Stabeler, after showing signs of discomfort, suddenly threw his rucksack on the ground, and found inside it two large stones which Bettega had quietly put in during the rest in the cave.

The climber who is homeward bound from the Dolomites by way of Innsbruck could with advantage leave the train at Sterzing and walk over the Pfitscher Joch and down the beautiful valley of the Zillerthal. There, from one of the lofty snow peaks that rise on its flanks, he could wave adieu to those savage pinnacles whose weird outlines are now softened and subdued by the veil of distance.

But, though far away from those and the other mightier

¹ See Glossary.

peaks of the central Alps, the climber can never forget them. He who has once tasted of the joys of the mountains, and breathed deep into his very being that health-giving air, wherein the lustiest of germs fail to exist, carries with him the blessing of understanding what it really means to be alive. Year by year he will find his recreation, in the truest sense of the word, amongst Nature's wildest recesses; he will actively realise the words of wisdom and say, "I will lift up mine eyes unto the hills from whence cometh my help!"

And in the days of the 'sere and yellow leaf, when even steep, grass slopes have become inaccessible, and perchance only the cosy corner of the domestic circle remains, the ineffaceable memory of the mountains will survive to the end. Old friends will not desert the aged, mountain warrior; through comforting clouds of tobacco smoke the words will come—"Do you remember?" Then will rise up the visions of the huge, white peaks, the vast fields of everlasting snow and the great, bare rocks stretching far overhead in front. Eyes will flash as of old, hands will clench eagerly, and the dormant muscles will vibrate for a moment with the joy and life of younger days in the recollection of the onslaught on some almost impregnable giant of the Alps.

But while we are young and active, let us away to the mountains to store up these lifelong memories, and experience the joy of living

"As you taste it only there
In the higher, purer air,
Unapproachable by worries and oblivious quite of care."

A GLOSSARY OF MOUNTAINEERING TERMS

PREPARED FOR BEGINNERS AND NON-CLIMBING READERS

The words in brackets denote the language or district to which each term belongs. English words are left without this parenthetical addition. The paged references apply to illustrations

- Abgeschnitten* (German).—Cut off. This word, as in “Wir sind abgeschnitten,” is often used by German-speaking guides when they reach some part of a mountain where further progress seems impossible. Often applied to huge unbridged crevasses, and less frequently to precipitous rocks
- Aiguille* (French).—A sharp peak of rock and sometimes snow, so-called from its needle-like or sharp-pointed outlines
- Alp* (German); *Alm* (Tyrolese).—Mountain pastures
- Anchorage*.—A safe position where one climber can, if necessary, support the weight of the next man by holding the rope (see pp. 53, 66)
- Arête* (French).—A steep, sharply defined ridge of rock or snow; often used in expressing an ascent up the exposed outside edge of a buttress or pinnacle
- Avalanche* (French).—A mass of débris—snow, ice, or rocks—which sometimes falls from the higher parts of a mountain
- Backing-up*.—The method of ascending chimneys by placing the back on one side, and the knees or feet on the other, according to the width of the cleft; also used to define the help given to a leader by the second climber following up close behind him as a support (see pp. 56, 460)
- Bealach* (Gaelic).—A pass—generally the lowest part of a ridge connecting two peaks
- Belaying-pin*—*Belay*.—An outstanding knob of rock round which the rope can be passed for greater safety (see p. 66)
- Bergschrund* (German).—The special variety of large crevasse often met with on the higher part of a mountain. It usually occurs where the steep upper ice or snow slope join the lower névé or glacier (see p. 81)
- Brèche* (French).—A narrow gap in a ridge
- Bwlch* (Welsh).—See *Bealach*

- Cabane* (French).—The mountain huts or club huts are so called in some French districts in the Alps (see p. 105)
- Cache* (French).—A hiding-place
- Cairn*.—A heap of stones
- Calotte* (French).—A snow-capped summit or dome, applied most commonly to Mont Blanc
- Chimney*—*Cheminée* (French).—A steep and narrow rift in the rocks, roughly resembling a household chimney with one side removed (see p. 175)
- Chock-stone*.—A mass of rock of varying size that has fallen and become wedged between the walls of a chimney or gully (see p. 206)
- Cima* and *Cimon* (Italian).—A peak, especially of a rounded shape
- Climbing-irons*.—Skeleton iron frameworks with spikes attached for fixing to the boot-soles. Used almost exclusively on snow mountains to save step-cutting
- Clogwyn* (Welsh).—A precipice or cliff
- Col* (French).—A pass.—See Bealach
- Combe*.—A mountain valley
- Coire*—*Corrie* (Scotch).—A hollow usually situated at a high level, and more or less surrounded by high mountains
- Cornice*.—An overhanging mass of snow or rock, generally on a ridge or at the top of a gully or couloir (see p. 394)
- Couloir* (French).—A steep, wide gully, it may be in rock, ice, or snow
- Coupé* (French).—See Abgeschnitten
- Crack*.—A rift in the rocks, narrower than a chimney
- Crampons* (French).—See Climbing-irons
- Crête* (French).—A ridge
- Crevasse* (French).—A fissure in a glacier or snowfield
- Crib* (Welsh).—A rocky ridge
- Croda* (Italian).—Used in the Dolomites for a bare ridge or peak
- Cwm* (Welsh).—See Coire
- Dampschiff* (German).—A large collapsible drinking-cup
- Dent* (French).—A rocky peak
- Dôme* (French).—A rounded snow-peak
- Eisbeil* (German).—Ice-axe
- Fenêtre* (French).—A narrow gap or window in a rock-ridge
- Fest* (German).—See Anchorage
- Firn* (German).—See Névé. Also sometimes applied to small, high glaciers
- Föhn* (German).—A warm wind from a southerly direction
- Gabel* (German).—A deeply cut notch in a ridge
- Gendarme* (French).—Alpine parlance for a tower or pinnacle of rock on a ridge (see p. 383)
- Geröll* (German).—See Scree
- Gîte* (French).—A shelter or resting-place
- Glaciers*.—Streams or accumulations of ice and snow which flow from high mountains valleywards. When the surface is free from snow they are called dry, and a hanging glacier is a mass of ice clinging to precipitous rocks

- Glacier-table*.—A large rock supported on a column of ice
- Glissade* (French).—A method of descending by sliding down snow-slopes, either standing or in a sitting position (see p. 91)
- Grat* (German).—A ridge
- Grava* (Italian).—See Screes
- Gully*.—A wide or narrow ravine cleaving the face of a precipice or steep mountain-side
- Hand-traverse*.—Traversing by means of hand-holds only
- Heisse Platte* (German).—Hot plate. A surface of bare rock in the midst of a steep glacier or slope of snow, and over which avalanches frequently descend
- Hitch*.—See Belaying-pin
- Homme de pierre* (French).—See Cairn
- Ice-fall*.—A much crevassed part of a glacier, usually caused by the ice descending steeply over the rocky bed on which it rests (see p. 283)
- Jammed-stone*.—See Chock-stone
- Joch* (German).—A pass
- Kamin* (German).—See Chimney
- Kamm* (German).—A jagged rock-ridge
- Kletterschühe* (German).—See Scarpetti
- Knife-edge*.—A very narrow rock-ridge
- Llyn* (Welsh).—A small mountain lake
- Lücke* (German).—A gap in a ridge between two mountains ; sometimes a pass
- Moraine* (French).—Stones and débris brought down and left by a glacier
- Moulin* (French).—A round hole in a glacier produced by the surface-water making its way down through the ice to the bed of the glacier
- Névé* (French).—Practically speaking, hardened snow, or the transitional stage between snow and ice. Somewhat loosely applied to the higher slopes of gently inclined snow lying above the snowline, or on the upper slopes of a glacier
- Nose*.—A buttress of rock, generally slightly overhanging, or very steep in its lower part
- Piolet* (French) ; *Pickel* (German).—Ice-axe (see p. 30)
- Pitch*.—A comparatively short, steep rise in the rock-bed of a gully, often crowned by a chock-stone. Used rather widely to define any serious difficulty met with on a climb (see p. 206)
- Piton* (French).—An iron stanchion, which can be driven into a crevice in the rocks, usually made with a circular head through which a rope can be passed
- Platform*.—A small, comparatively level place on steep rocks
- Platte*, plural *Platten* (German).—Rocks of a slabby formation
- Rake*.—A gully filled with screes
- Refuge* (French) ; *Rifugio* (Italian).—Mountain huts usually erected by some section of a continental Alpine club to serve as sleeping-quarters for mountaineers
- Roches Moutonnées* (French).—Rocks rounded by glacier action, like sheep's backs

- Rucksack* (German).—A loosely made bag supported on the back by leather bands over the shoulders. Much simpler and preferable to the old-fashioned knapsack (see p. 30)
- Sattel* (German).—A saddle or pass
- Scarpetti* (Italian).—Shoes with hempen soles, used for rock-climbing mostly in the Dolomites
- Scharte* (German).—A notch in a ridge
- Schrund* (German).—See Crevasse
- Screes*.—Loose slopes of rocks or stones
- Séracs* (French).—Towers of ice on a glacier, formed by the intersection of complicated crevasses (see p. 86)
- Sgurr* (Scotch).—A rough peak
- Shoulder, giving a*.—A method of assisting the leader of a party by allowing him to stand on a companion's shoulders to reach a higher hold (see p. 460)
- Slack*.—The loose rope between two climbers
- Snout*.—The lower end of a glacier
- Snow-blindness*.—Inflammation of the eyes, caused by the bright light reflected from a snow-surface
- Snowline*.—This term is used somewhat indefinitely to describe an imaginary line on a high mountain above which there is unmelted snow all the year round
- Steigeisen* (German).—See Crampons
- Tarn*.—See Llyn
- Threading the Rope*.—Placing it through a convenient hole between a chock-stone and the rocky bed of a gully. If the rope works freely, it can be used to lower the last climber down an overhanging pitch
- Through Route*.—The way up a chimney or gully behind a chock-stone; the hole between the stone and the bed of the gully
- Thurm* (German); *Tour* (French).—See Gendarme
- Traverse*.—A passage more or less horizontal across rocks, ice, or snow on a mountain-side; also used to define a climb up one side of a peak and down the other
- Ueberhang* (German).—See Cornice
- Verglas*.—The film of ice on glazed rocks
- Wall—Wand* (German).—A steep cliff of rock, ice, or snow
- Zinne* (German).—A pointed rock peak

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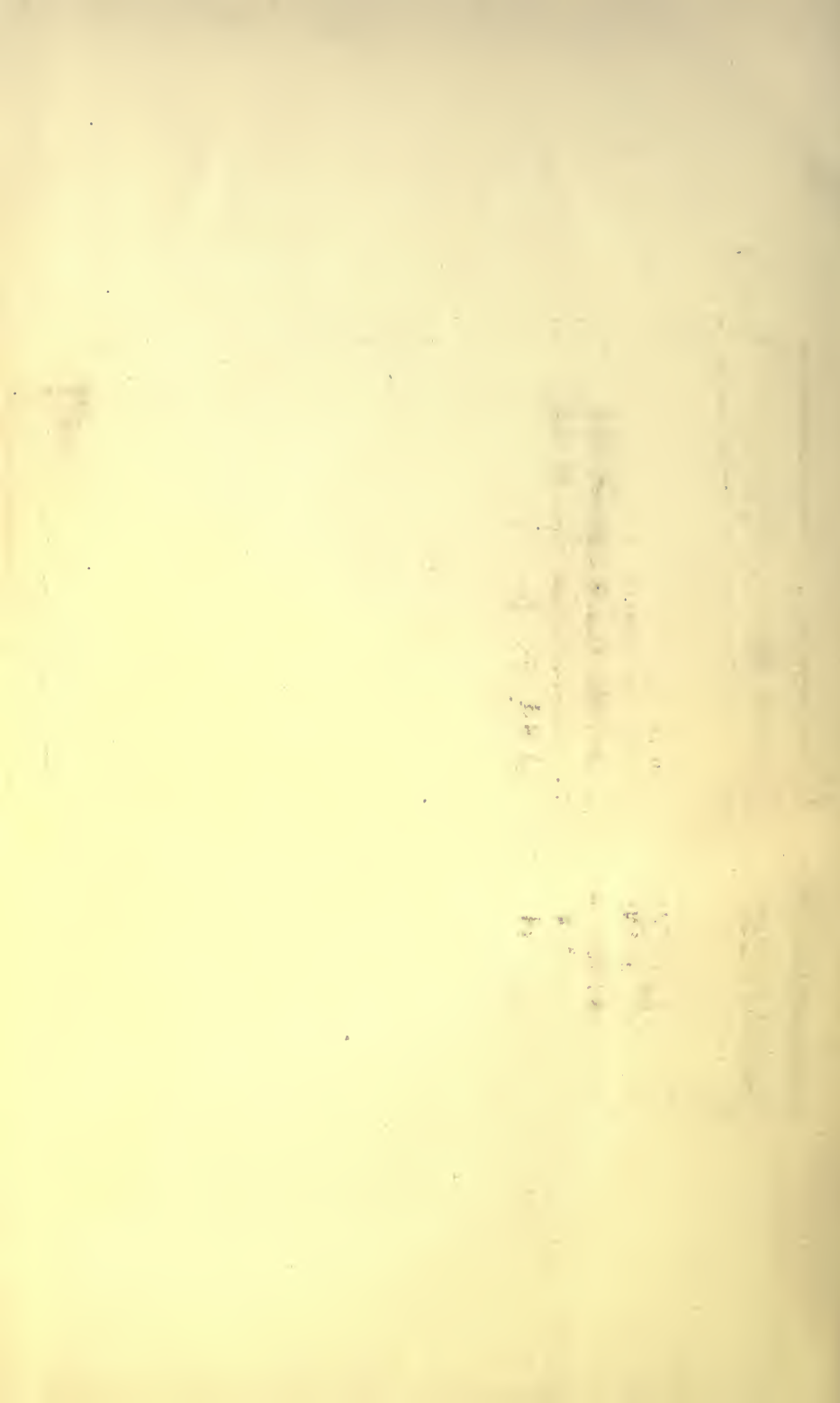
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